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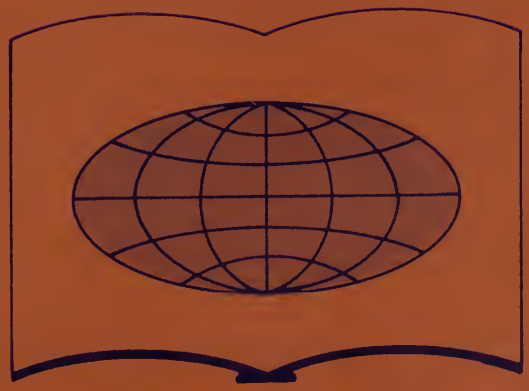

Volume 5 Number 6
March 14, 1969

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Volume 5
March 14, 1969
Number 6

# PESTICIDES DOCUMENTATION BULLETIN

A Bi-Weekly Publication of U.S. Department of Agriculture

## OBJECTIVES AND SCOPE

The *Pesticides Documentation Bulletin* is compiled by the National Agricultural Library's Pesticides Information Center to facilitate national research efforts in all aspects of pest control. This bi-weekly index to the literature includes coverage of diseases, insects, nematodes, parasites, weeds and other pests affecting plants, animals, man, our natural resources and other values in man's environment. Special emphasis is given to the literature on toxicological, physiological and epidemiological aspects of pests and their control by chemical biological and integrated methods.

For broader coverage of literature on agriculture and related subjects, please consult the *Bibliography of Agriculture*, a monthly publication of the National Agricultural Library.

## FORMAT

The *Bulletin* is a categorized bibliography, with citations arranged alphabetically by author under the following major subjects:

10 Entomology
20 Crop Protection
30 Livestock Protection
40 Commodity Protection
50 Environmental Contamination
55 Residues
60 Toxicology
65 Plant Physiology & Biochemistry
70 Chemistry
80 Engineering
90 Industry

*Citations:* Each citation consists of an accession number assigned serially with the last two digits representing the Bulletin's issue year, i.e. 3286-67. The citation number (minus the year) is used in all indices. Following the accession number is the full title of the article; all personal authors; an abbreviated journal title; volume, issue and inclusive page numbers; date of publication; language abbreviation, if other than English; and the National Agricultural Library's call number. Subject descriptors, patent or grant numbers, bibliographer's notes, and abstracts or extracts may follow each citation when appropriate.

*Subject Index:* Subject descriptors appear in the index followed by title arranged numerically by accession number. The Agricultural/Biological Vocabulary developed by the National Agricultural Library is used as a basic thesaurus of descriptors.

*Biographical Index:* Names of first authors are arranged alphabetically, followed by organizational affiliation and accession number.

*Author Index:* Names of personal authors are arranged alphabetically, followed by accession numbers of pertinent citations.

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In addition to the citations contained in the Bulletin, the Pesticides Information Center maintains two other files, the INTREDIS Register and the Herbicides Data File.

The INTREDIS Register is a computer data bank in the field of forest pathology. It contains title and author references to abstracted articles including subject, country, host plant genus or species, organisms causing the diseases, abstracting journal and year of publication. The computer search uses boolean parameters in any combination of elements listed.

The Herbicides Data File consists of reports on field tests conducted by the Crops Protection Research Branch, Crop Research Division, Agriculture Research Service. Each test record contains the following items of information:

Compound Tested
Company furnishing the compound
Author or Investigator
Test Sponsor
Date
Location
Mode of Application
Rates of Application
Soil Types
Carriers
Crops or Weeds tested with phytotoxicity ratings
Associated documentation

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## ACKNOWLEDGMENT

The Pesticides Information Center, National Agricultural Library, gratefully acknowledges the cooperation and assistance of the Department of Defense; Health, Education, and Welfare; and Interior; the Federal Committee on Pest Control, and state and industrial organizations in the development of the Center and preparation of this Bulletin. Special thanks are expressed to the Federal Committee on Pest Control for its suggestions and support. We hope the Bulletin will serve as an example of the effectiveness of interdepartmental cooperation and the speed with which effective services can be developed through a coordinated and cooperative interdepartmental effort.

Use of funds for printing this publication approved by the Director of the Bureau of the Budget (May 23, 1968).


PLEASE GIVE COMPLETE BIBLIOGRAPHIC INFORMATION AS IT APPEARS IN THIS PUBLICATION FOR EACH ITEM REQUESTED.

This publication reports research involving pesticides. It does not contain recommendations for their use, nor does it imply that the uses discussed here have been registered. All uses of pesticides must be registered by appropriate State and/or Federal agencies before they can be recommended.

CAUTION: Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife—if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers.


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**FOUNDATIONS OF GENERAL ENTOMOLOGY. (IT )**
*655P BOLOGNA, ITALY, EDIZIONI CALDERINI*
1966 QL463.G7
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**A SIMPLIFIED MECHANISM FOR CONTROLLING DELIVERY OF INSECTICIDE FROM A GRANULAR DISTRIBUTOR DRAWN BY A TRACTOR.**
V E Adler C Daniels
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Equipment, Hypera postica, Insecticide application, Insecticides, Tractors.

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D S Bhatti
*Prog Farming 4(3):409-414*
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M T Tanton
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M Abdullah
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Anthicidae, Cadogenius villosus, Insect taxonomy.

**3086-69**
**STERIPHODON ABDOMINALIS (PIC) COMB. NOV. (COLEOPTERA: ANTHICIDAE: EURYGENIINAE) FROM BENGAL.**
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D A Chant C Athias-Henriot
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R F Hussey P Wygodzinsky
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M T James
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A P Kapur
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Catalogs, Cerambycidae, Insect geography, Insect taxonomy. English abstract

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B McDaniel
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Catalogs, Cicadellidae, Insect taxonomy. English abstract

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P Nuorteva
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H Roberts
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I Rocha S Albuquerque
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A Servadei
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1967 410 F277
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V D Sevastjanov
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Mar 1969 410 R92
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A Sikorowa
*Pol Arch Hydrobiol 14(27)(3):87-90*
1967 409.6 P76
Culicidae, Insect taxonomy, Zoogeography. Polish summary.

3131-69
NOTES ON SOME OLDER TYPES OF NEOTROPICAL MICROPEZIDAE WITH DESCRIPTIONS OF NEW SPECIES (DIPTERA, ACALYPTRATAE).
G C Steyskal
*Sao Paulo Dep Zool Papeis Avulsos 20(8):75-83*
28 Mar 1967 410.9 SA63
Catalogs, Insect geography, Insect names, Insect taxonomy, Micropezidae.

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J M Stusak
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Acanthoberytus wygodzinskyi, Insect taxonomy.

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*Entomol Soc Queensland J 7(1):63-66*
Jun 1968 420 EN823
Formicidae, Insect biology, Insect taxonomy, Zoogeography.

3134-69
CONSIDERATIONS ON EUBAPTUS PALLIATUS LAC., BRUCHUS SCAPULARIS PIC AND DESCRIPTIONS OF THE PREIMAGINAL STAGES OF EUBAPTUS RUFITHORAX (PIC). (SP )
A L Teran
*Acta Zool Lilloana 21:71-89 REF*
1967 410 AC82
Bruchidae, Host records, Insect morphology, Insect names, Insect taxonomy. English abstract

3135-69
COMMON NAMES OF BRITISH INSECT AND OTHER PESTS.
I Thomas H W Janson A D Aitken
*Great Brit Min Agr Fish Food Bull (6):2-72*
1968 10 G794B
Catalogs, Insects, Nematodes, Nomenclature, Slugs, Snails, Taxonomy.
Common and scientific names are listed for British arthropods, slugs, snails, and eelworms.

3136-69
NEW DANISH CICADELLIDS 2 (HEMIPTERA, CICADELLIDAE). (DA )
L Trolle
*Flora Fauna 74(4):113-121 REF*
Dec 1968 410 F662
Cicadellidae, Insect geography, Insect taxonomy. English abstract

3137-69
ISOPODA TERRESTRIA OF TURKEY, 4TH REPORT, AND ON THE ADAPTATION TO VOLVATION IN THE FAMILIES OF ARMADILLIDIIDAE, EUBELIDAE AND ARMADILLIDAE. (GE )
K W Verhoeff H Strouhal
*Zool Jahrbucher Abt Syst Okol Geogr Tiere 93(4):465-506 REF*
1967 410 Z751S
Isopoda, Taxonomy.

3138-69
HEMIPTEROUS REDUVIIDAE AND PACHYNOMIDAE OF SUDAN AND ETHIOPIA. (FR )
A Villiers
*Suomen Hyonteistieteellinen Aikakauskir Ann Entomol Fenn 34(3):159-170 MAP*
1968 421 SU7
Insect taxonomy, Nabidae, Reduviidae, Zoogeography.

3139-69
HEMIPTEROUS HENICOCEPHALIDAE OF SUDAN. (FR )
A Villiers
*Suomen Hyonteistieteellinen Aikakauskir Ann Entomol Fenn 34(3):156-159*
1968 421 SU7
Enicocephalidae, Insect taxonomy, Zoogeography.

3140-69
A NEW SPECIES OF THE GENUS NYCTONYMPHA THOMPSON, 1868, WITH A KEY FOR DETERMINING THE BRAZILIAN SPECIES (COLEOPTERA, CERAMBYCIDAE, LAMIINAE). (POR )
D Zajciw
*Rev Brasil Biol 28(4):423-425*
Dec 1968 442.8 R326
Catalogs, Cerambycidae, Insect taxonomy.

3141-69
IMATHIA AND AMBLYCNEMUS (COLEOPTERA: CURCULIONIDAE: CRYPTORHYNCHINAE).
E C Zimmerman
*Pacific Insects 9(2):187-196 REF*
20 Jun 1967 421 P11
Curculionidae, Insect anatomy, Insect taxonomy, Zoogeography.
Abstract

## PHYSIOLOGY AND BIOCHEMISTRY

3142-69
AN APHOLATE-RESISTANT STRAIN OF HOUSE FLIES. I. RESISTANCE TO OTHER CHEMOSTERILANTS AND TO INSECTICIDES.
R O Abasa E J Hansens
*J Econ Entomol 62(2):334-338 REF*
15 Apr 1969 421 J822
Apholate, Chemosterilants, Insect genetics, Insecticide resistant insects, Insecticides, Musca domestica.

3143-69
STUDIES ON THE ERADICATION OF ANOPHELES PHAROENSIS BY THE STERILE-MALE TECHNIQUE USING COBALT-60. VII. POPULATION DYNAMICS OF MOSQUITOES IN FAYOUM AREA, UAR.
A A Abdel-Malek A O Tantawy A M Wakid
*J Econ Entomol 62(2):348-351*
15 Apr 1969 421 J822
Anopheles pharoensis, Biological control (insects), Chemical control (insects), Cobalt isotopes, Culicidae, Egypt, Insect collecting equipment, Insect populations, Sterility.

3144-69
OBSERVATIONS ON THE AUSTRALIAN DIACALLA COMATA PASCOE (COLEOPTERA: ANTHICIDAE: EURYGENIINAE).
M Abdullah
*Pakistan J Sci Indus Res 10(4):268-269*
Oct 1967 475 P174
Anthicidae, Diacalla comata, Insect taxonomy.

3145-69
VARIATIONS IN THE NEUTRAL LIPIDS OF DYSDERCUS KOENIGII (HEMIPTERA) DURING ITS LIFE CYCLE.
H C Agarwal K D P Rao
*J Insect Physiol 15(1):161-166 REF*
Jan 1969 421 J825
Dysdercus koenigi, Insect biochemistry, Insect metabolism, Lipids.

3146-69
VARIATIONS IN STEROL AND STEROL ESTERS DURING DEVELOPMENT OF DYSDERCUS KOENIGII (HEMIPTERA).
H C Agarwal
*Cur Sci 38(1):21-22*
05 Jan 1969 475 SC123
Dysdercus koenigi, Esters, Insect biochemistry, Insect physiology, Metamorphosis, Sterols.

3147-69
MATERIALS EVALUATED AS INSECTICIDES, REPELLENTS, AND CHEMOSTERILANTS AT ORLANDO AND GAINSVILLE, FLA., 1952-1964.
*U S D A Agr Handb (340):424P*
Aug 1967 1 AG84AH
Chemosterilants, Insect control, Insect repellents, Insecticide residues, Insecticides, Larvicides, Methodology, Tables (data). The relative effectiveness of materials of know composition tested as insect control agents is listed.

3148-69
ISOLATION, IDENTIFICATION, AND SYNTHESIS OF THE SEX ATTRACTANT OF THE BLACK CARPET BEETLE. FINAL REPORT, JUNE 1, 1965 - OCTOBER 31, 1967.
*6 P.*
31 Oct 1967 QL597.R6
Attagenus megatoma, Attractants, Biochemistry, Chemicals, Insects, Reports, Sex, Tables (data).

3149-69
CHANGE IN THE SHAPE OF SILKWORM POLYHEDRA BY MEANS OF PASSAGE THROUGH CHICK EMBRYO.
K Aizawa
*Entomophaga 6(3):197-201*
1961 421 EN835
Bombyx mori, Chickens, Embryology, Insect physiology, Polyhedroses. French summary

3150-69
COCKROACHES AND SILVERFISH.
W C Allan
*Ontario Dep Agr Publ 15:9P.*
7 ON8P
Blattidae, Insect behavior, Insect control, Insecticides, Lepisma saccharina.

3151-69
IMPORTED CERAMBYCIDAE. (GE )
V Allenspach
*Ent Soc Quebec Mem 17(2):36-37*
Jun 1967 QL461.E56
Ancylonotus tribulus, Cerambycidae, Insect taxonomy, Moneilema armata, Plant hosts, Pogonocherus perroudi, Triplochiton scleroxylon.

3152-69
SUGARS AND TREHALASE IN THE REPRODUCTIVE ORGANS AND HEMOLYMPH OF THE QUEEN AND DRONE HONEY BEES (APIS MELLIFICA L. VAR. LIGUSTICA SPIN.).
E Alumot Y Lensky P Holstein
*Compar Biochem Physiol 28(3):1419-1425 REF*
Mar 1969 444.8 C73
Apis mellifera, Hemolymph, Insect biochemistry, Reproductive organs, Sugars, Trehalase.

3153-69
TOXICITY OF PETKOLIN AGAINST COTTON APHIDS (HEMIPTERA: APHIDIDAE).
M Anwarullah S S Qureshi S H Ashrafi
*Pakistan J Sci Indus Res 10(4):251-253 REF*
Oct 1967 475 P174
Aphis gossypii, Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, Cotton, Endrin, Insecticides, Petkolin.

3154-69
PHEROMONES FROM THE ABDOMINAL BRUSHES OF MALE NOCTUID LEPIDOPTERA.
R T Aplin M C Birch
*Nature 217(5134):1167-1168*
23 Mar 1968 472 N21
Abdomen, Benzaldehyde, Breeding, Experimental insects, Leucaena, Noctuidae, Pheromones, Research, Scent glands.

3155-69
LETHAL LIMITS OF LOW TEMPERATURE FOR THE ALFALFA WEEVIL IN ILLINOIS.
E J Armbrust C E White J R DeWitt
*J Econ Entomol 62(2):464-467*
15 Apr 1969 421 J822

Hypera postica, Insect physiology, Lethal factor, Temperature.

3156-69
**PREPARATION TECHNIQUES FOR ICHNEUMONIDAE, FACILITATING THEIR SYSTEMATIC STUDY. (FR )**
J-F Aubert
*Entomophaga 6(2):103-108*
1961 421 EN835
Ichneumonidae, Insect biology, Mounting, Research. English summary

3157-69
**PRESENCE IN THE VINEYARDS OF THE TESSIN, OF A NEARTIC CICADELLA, NEW FOR SWITZERLAND,SCAPHOIDEUS LITTORALIS BALL (HOM., JASSIDAE), A POSSIBLE CARRIER OF YELLOW MOSAIC. (FR**
M Baggiolini V Canevascini R Caccia Y Tencalla G Sobrio
*Switzerland Stat Essais Agr Lausanne Publ 60(3/4):270-275*
Apr 1968 105.5 SW63
Cicadellidae, Economics, Grape vineyards, Insect biology, Insect pests, Insect vectors, Mosaic, Plant disease transmission, Scaphoideus littoralis. Reprint from Communications of the Swiss Entomological Society, Lausanne, Switzerland.

3158-69
**LIPID METABOLISM IN HELMINTH PARASITES--V. ABSORPTION OF FATTY ACIDS AND MONOGLYCERIDES FROM MICELLAR SOLUTION BY HYMENOLIPIS DIMINUTA (CESTODA).**
H H Bailey D Fairbairn
*Compar Biochem Physiol 26(3):819-836 REF*
Sep 1968 444.8 C73
Biochemistry, Evolution, Helminths, Hymenolepis diminuta, Lipids.
Abstract

3159-69
**ANOPHELINE MOSQUITOS FOUND BREEDING IN ISRAEL IN 1963-1965 DURING THE LAST STAGE OF THE MALARIA ERADICATION PROJECT.**
A Barkai Z Saliternik
*Bull Entomol Res 58(PT 2):353-366 MAP REF*
Nov 1968 421 B87
Anopheles, Breeding, Malaria, Morphology, Reproduction.

3160-69
**SUSCEPTIBILITY OF EGGS AND YOUNG ADULTS OF CRYPTOLESTES FERRUGINEUS AND C. TURCICUS TO HYDROGEN PHOSPHIDE.**
P S Barker
*J Econ Entomol 62(2):363-365 REF*
15 Apr 1969 421 J822
Cryptolestes ferrugineus, Cryptolestes turcicus, Dosage, Fumigation, Insect eggs, Insect mortality, Insecticide resistant insects, Phosphine.

3161-69
**A QUANTITATIVE BIOASSAY FOR THE SEX PHEROMONE OF EPIPHYAS POSTVITTANA (LEPIDOPTERA) AND FACTORS LIMITING MALE RESPONSIVENESS.**
R J Bartell H H Shorey
*J Insect Physiol 15(1):33-40*
Jan 1969 421 J825
Biological assay, Diurnal rhythm, Epiphyas postvittana, Pheromones, Sex behavior.

3162-69
**FRUCTOSE DIPHOSPHATE ALDOLASE DURING GROWTH AND DEVELOPMENT OF THE BLOWFLY, PHORMA REGINA (MEIGEN).**
A C Bauer L Levenbook
*Compar Biochem Physiol 28(2):619-632 REF*
Feb 1969 444.8 C73
Development, Fructosediphosphate aldolase, Insect biochemistry, Phormia regina.

3163-69
**AQUANIRMUS SPECIES (INSECTA, MALLOPHAGA) OF RUMANIA'S FAUNA. (RUM )**
I Bechet
*Cluj Studia Univ Babes Bolyai 13(2):97-100*
1968 403 C622
Birds, Insect ecology, Mallophaga, Parasitic insects. English and Russian summaries.

3164-69
**NOTES ON THE BIOLOGY OF SOME AUSTRALIAN STICK INSECTS (PHASMATODEA).**
G O Bedford
*Entomol Soc Queensland J 7(1):81-82*
Jun 1968 420 EN823
Fertility, Insect biology, Longevity, Phasmatodea.

3165-69
**SERRATIA MARCESCENS FOUND IN EGGS OF HELIOTHIS ZEA: TESTS AGAINST TRICHOPLUSIA NI.**
J V Bell
*J Invertebrate Pathol 13(1):151-152*
Jan 1969 421 J826
Bacteria, Biological control (insects), Experimental insects, Heliothis zea, Insect diseases, Insect eggs, Serratia marcescens, Trichoplusia ni.

3166-69
**COMPARATIVE SUSCEPTIBILITY IN THE LABORATORY OF LARVAL INSTARS OF TRICHOPLUSIA NI AND PIERIS RAPAE TO BACILLUS THURINGIENSIS VAR. THURINGIENSIS.**
J V Bell C S Creighton
*J Invertebrate Pathol 12(2):180-187 REF*
Nov 1968 421 J826
Bacillus thuringiensis, Insect diseases, Laboratories, Larvae, Pieris rapae, Trichoplusia ni.

3167-69
**THE ELECTRICAL ACTIVITY OF COCKROACH VISCERAL MUSCLE FIBERS.**
P Belton B E Brown
*Compar Biochem Physiol 28(2):853-863 REF*
Feb 1969 444.8 C73
Bio-electric potential, Insect biochemistry, Muscles, Periplaneta americana.

3168-69
**ON THE ECOLOGY OF PROSPALTELLA PERNICIOSI TOWER (HYM. APHELINIDAE), A SPECIFIC PARASITE IMPORTED BY QUADRASPIDIOTUS PERNICIOSUS COMST. (HOM. DIASPINIDAE). (FR )**
C Benassy H Bianchi
*Entomophaga 5(2):165-181 REF*
1960 421 EN835
Aspidiotus perniciosus, Ecology, Homoptera, Hymenoptera, Parasitism, Prospaltella perniciosi. English summary

3169-69
**INFLUENCE OF MATING, INSEMINATION, AND OTHER FACTORS ON OOGENESIS AND OVIPOSITION IN THE MOTH ZEIRAPHERA DINIANA.**
G Benz
*J Insect Physiol 15(1):55-71 REF*
Jan 1969 421 J825
Insect reproduction, Oogenesis, Oviposition, Zeiraphera diniana.

3170-69
**ON THE COMPONENTS OF SECRETION OF MANDIBULAR GLANDS OF THE ANT (LASIUS (DENDROLASIUS) FULIGINOSUS).**
R Bernardi C Cardani D Ghiringhelli A Selva A Baggini M Pavan
*Tetrahedron Lett (40):3893-3896 REF*
Oct 1967 385 T29
Biochemistry, Dendrolasin, Formicidae, Glands (insects), Lasius fuliginosus, Mandibular glands, Secretion.

3171-69
**VOLATILE NEUTRAL COMPOUNDS EMANATING FROM LABORATORY-REARED COLONIES OF THE DESERT LOCUST, SCHISTOCERCA GREGARIA.**
M M Blight J F Grove A McCormick
*J Insect Physiol 15(1):11-24 REF*
Jan 1969 421 J825
Acetates, Carbon dioxide, Insect biochemistry, Insect rearing, Schistocerca gregaria, Volatile substances, Water.

3172-69
**THE BIONOMICS AND CONTROL OF ARGYROSTAGMA NIOBE (WEYM.) AND DASYCHIRA GEORGIANA FAWC. (LEP., LYMANTRIIDAE) ON BLACK WATTLE IN KENYA.**
J A Bullock R G Smith
*Bull Entomol Res 58(PT 2):255-277 MAP REF*
Nov 1968 421 B87
Acacia, Biology, Dasychira georgiana, Economics, Insect control, Lepidoptera, Lymantriidae.

3173-69
**ABSORPTION MEASUREMENTS ON BUTTERFLIES OF THE GENUS ZYGAENA FAB. (LEP.) AS AN EXPLANATION OF THE LITORAL MELANISM. (GE )**
H Burgeff H Fetz
*Biol Zentralbl 87(6,NOV-DEC):689-703*
Dec 1968 442.8 B523
Insect color, Insect evolution, Melanosis, Radiobiology, Zygaena. English abstract

3174-69
**SOME REMARKS ON THE HEMIPTERA-HETEROPTERA: THEIR IMPORTANCE OF SOME AUXILARY INSECTS AND THE POSSIBILITY OF THEIR UTILIZATION IN BIOLOGICAL CONTROL. (FR )**
J Carayon
*Entomophaga 6(2):133-141 REF*
1961 421 EN835
Biological control (insects), Hemiptera, Heteroptera, Insect behavior, Insect control. English summary

3175-69
**THE MOSQUITOES OF NEVADA.**
H C Chapman
*Nev Univ Max C Fleischmann Coll Agr T 43 P. REF*
Jun 1968 S537.M3A26
Aedes, Anopheles, Culex, Culicidae, Culiseta, Insect biology, Insect control, Insect identification, Insect taxonomy, Zoogeography.

3176-69
**METABOLISM OF DIAZINON-C14 IN WESTERN CORN ROOTWORM BEETLES.**
C C Conaway C O Knowles
*J Econ Entomol 62(2):286-289 REF*
15 Apr 1969 421 J822
Carbon isotopes, Chromatography, Diabrotica virgifera, Diazinon, Insect biochemistry, Insect metabolism, Organophosphorus compounds.

3177-69
**COMPARATIVE STUDY OF SOME GLANDS OF BEES (HYMENOPTERA, APOIDEA) AND THE RESPECTIVE EVOLUTIONARY IMPLICATIONS. (POR**
C da Cruz Landim
*Arq Zool Estad Sao Paulo 15(3):177-290 REF*
27 Jul 1967 410 AR6
Apoidea, Insect evolution, Insect histology, Insect morphology, Salivary glands. English abstract

3178-69
**THE PRESENCE OF LIPID SUBSTANCES IN THE SALIVARY GLANDS OF TRIGONA (HYMENOPTERA, APOIDEA). (POR )**
C da Cruz Landim F R Puga
*Sao Paulo Dep Zool Papeis Avulsos 20(7):65-74 REF*
28 Mar 1967 410.9 SA63

Apoidea, Insect biochemistry, Insect physiology, Lipids, Salivary glands. English abstract

**3179-69**
**MULTIPLE MATING OF GLOSSINA MORSITANS WESTW. AND ITS POTENTIAL EFFECT ON THE STERILE MALE TECHNIQUE.**
D A Dame H R Ford
*Bull Entomol Res 58(PT 2):213-219*
Nov 1968 421 B87
Biological control (insects), Breeding, Glossina morsitans, Insect behavior, Reproduction, Sterility.

**3180-69**
**EASY RECOGNITION OF MATED FEMALES OF THE EUROPEAN PINE SHOOT MOTH.**
G E Daterman
*J Econ Entomol 62(2):527-528*
15 Apr 1969 421 J822
Insect behavior, Insect reproduction, Rhyacionia buoliana.

**3181-69**
**DEVELOPMENT OF THE BAIT PRINCIPLE FOR BOLL WEEVIL CONTROL: CALCO OIL RED N-1700 DYE FOR MEASURING INGESTION.**
R J Daum G H McKibben T B Davich R McLaughlin
*J Econ Entomol 62(2):370-375 REF*
15 Apr 1969 421 J822
Anthonomus grandis, Baits, Chromic oxide, Digestion, Dyes, Insect metabolism.

**3182-69**
**LABORATORY BREEDING OF PIERIS BRASSICAE TRANSMITTING A GRANULOSIS VIRUS.**
W A L David B O C Gardiner S E Clothier
*J Invertebrate Pathol 12(2):238-244 REF*
Nov 1968 421 J826
Breeding, Granuloses, Insect diseases, Insect rearing, Pieris brassicae, Viruses.

**3183-69**
**QUANTITATIVE DIETARY REQUIREMENTS FOR HISTIDINE IN THE SAW-TOOTHED GRAIN BEETLE, ORYZAEPHILUS SURINAMENSIS (L.) (COLEOPTERA, SILVANIDAE).**
G R F Davis
*Compar Biochem Physiol 28(2):741-746 REF*
Feb 1969 444.8 C73
Histidine, Insect metabolism, Insect nutrition, Oryzaephilus surinamensis.

**3184-69**
**RESPONSE OF ADULT SOUTHERN POTATO WIREWORMS TO LIGHT TRAPS.**
A Day W J Reid
*J Econ Entomol 62(2):314-318*
15 Apr 1969 421 J822
Attractants, Conoderus falli, Insect behavior, Insect collecting equipment, Insect traps, Light traps.

**3185-69**
**SOME FACTORS AFFECTING ECLOSION OF GLOSSINA MORSITANS WESTW. FROM PUPAE.**
G J Dean F Wilson S Wortham
*Bull Entomol Res 58(PT 2):367-377 REF*
Nov 1968 421 B87
Eclosion, Glossina morsitans, Insect biology, Pupae.

**3186-69**
**PREPARATION TECHNIQUES FOR MICROHYMENOPTERA. (FR )**
V Delucchi
*Entomophaga 6(2):109-113*
1961 421 EN835
Hymenoptera, Insect biology, Mounting. English summary

**3187-69**
**SOURCES OF ALCOHOL DEHYDROGENASE (NAD0-LINKED) IN THE COCKROACH, LEUCOPHAEA MADERAE.**
C W Despreaux L L Pierre
*Can J Microbiol 15(3):257-258 REF*
Mar 1969 448.8 C162
Alcohol dehydrogenase, Enzymes, Fat body, Insect biology, Insect cultures, Leucophaea maderae, Parasitic insects, Symbiosis, Synthesis.

**3188-69**
**INITIATION OF POLLEN CONSUMPTION AND POLLEN MOVEMENT THROUGH THE ALIMENTARY CANAL OF NEWLY EMERGED HONEY BEES.**
A Dietz
*Entomol Soc Amer Ann 62(1):43-46*
15 Jan 1969 420 EN82
Apis mellifera, Consumption, Emergence, Gastrointestinal system, Insect nutrition, Insect physiology, Pollen.

**3189-69**
**STUDIES ON THE NEUROSECRETORY SYSTEM OF THE FEMALE MOLE CRICKET GRYLLOTALPA AFRICANA (ORTHOPTERA: GRYLLOTALPIDAE).**
G S Dogra
*J Zool 152(2):163-178 REF*
Jun 1967 410.9 L84P
Gryllotalpa africana, Gryllotalpidae, Insect histology, Nervous system, Secretion.

**3190-69**
**TWO NEW SPECIES OF DACINAE (DIPTERA: TRYPETIDAE) FROM NEW GUINEA.**
R A I Drew
*Entomol Soc Queensland J 7(1):77-79*
Jun 1968 420 EN823
Dacinae, Insect identification, Insect morphology, Insect taxonomy.

**3191-69**
**CONTRIBUTIONS TO THE STUDY OF THE OVIPOSITOR IN BOMBILIDAE. (RUM**
L Dusa
*Cluj Studia Univ Babes Bolyai 13(2):77-86*
1968 403 C622
Bombyliidae, Insect anatomy, Insect morphology, Ovipositors. English and Russian summaries.

**3192-69**
**EFFECTS OF GAMMA RADIATION ON THE TOBACCO BUDWORM. I. IRRADIATION OF PUPAE. II. IRRADIATION OF MOTHS. III. IRRADIATION OF EGGS AND LARVAE.**
E I El Sayed J B Graves
*J Econ Entomol 62(2):289-298 REF*
15 Apr 1969 421 J822
Dosage, Gamma rays, Heliothis virescens, Insect control, Insect eggs, Insect physiology, Larvae, Longevity, Pupae.

**3193-69**
**PHYSIOLOGICAL FACTORS INFLUENCING THE TOXICITY OF CARBAMATE INSECTICIDES TO INSECTS.**
S A El-Aziz R L Metcalf T R Fukuto
*J Econ Entomol 62(2):318-324 REF*
15 Apr 1969 421 J822
Apis mellifera, Blattella germanica, Carbamates, Chemical control (insects), Insect physiology, Musca domestica, Synergism.

**3194-69**
**SELECTION AND HOST PLANT OVERLAP IN TWO DESERT PAPILIO BUTTERFLIES.**
T C Emmel J F Emmel
*Ecology 50(1,WINTER):158-159*
1969 410 EC7
Feeding, Food plants, Insect physiology, Insect populations, Papilionidae, Rainfall.

**3195-69**
**STUDIES ON NEOTROPICAL POMPILIDAE (HYMENOPTERA) IV. EXAMPLES OF DUAL SEX-LIMITED MIMICRY IN CHIRODAMUS.**
H E Evans
*Psyche 75(1):1-22*
Mar 1968 421 P95
Chirodamus, Insect genetics, Mimicry, Pompilidae.

**3196-69**
**SELECTION METHODS FOR PATHOGENIC FORMS OF MICROORGANISMS. (FR**
A A Evlakhova O I Chvetzova
*Entomophaga Mem Hors Ser (2):521-529 REF*
1964 421 EN835M
Bacillus cereus, Bacteria, Biological control (insects), Cobalt isotopes, Galleria mellonella, Gamma rays, Insect diseases, Insecticides, Methodology, Microorganisms, X-rays. English summary.

**3197-69**
**EFFECTS OF THE B. T. DELTA-ENDOTOXIN PRODUCED BY BACILLUS THURINGIENSIS VAR. DENDROLIMUS ON THE HEMOLYMPH OF THE SILKWORM, BOMBYX MORI.**
R M Faust E M Dougherty
*J Invertebrate Pathol 13(1):155-157*
Jan 1969 421 J826
Bacillus thuringiensis, Bacteria, Biological control (insects), Bombyx mori, Culture media, Endotoxins, Experimental insects, Hemolymph, Injections, Insect diseases.

**3198-69**
**SPERMATOPHORES IN ARTHROPS AND THEIR EVOLUTION AS FAR AS INSECTS ARE CONCERNED. (IT )**
G Fiori
*Accad Naz Ital Entomol Atti 9:31-54 REF*
1961 420 AC2
Arthropoda, Evolution, Insect physiology, Insects, Reproduction, Research, Spermatophores, Spermatozoa.

**3199-69**
**ATTRACTANTS FOR THE JAPANESE BEETLE.**
W E Fleming
*U S D A Tech Bull (1319):86P REF*
Feb 1969 1 AG84TE
Attractants, Baits, Chemicals, Insect pests, Insect traps, Plants, Popillia japonica, Sex attractants, Smell, Spraying.

**3200-69**
**THE BEHAVIOR OF BEES VISITING RUNNER BEANS (PHASEOLUS MULTIFLORUS).**
J B Free
*J Appl Ecol 5(3):631-638 REF*
Dec 1968 410 J828
Bee behavior, Bombus, Insect ecology, Insect physiology, Scarlet runner beans.

**3201-69**
**WINTER SURVIVAL IN ARIZONA OF THURBERIA WEEVILS RELEASED FROM THURBERIA BOLLS.**
R E Fye J E Leggett
*J Econ Entomol 62(2):467-470*
15 Apr 1969 421 J822
Anthonomus grandis thurberiae, Cotton, Hibernation, Insect mortality, Insect physiology, Longevity.

**3202-69**
**COMPOUNDS AFFECTING FERTILITY OF ADULT HOUSE FLIES.**
R L Fye G C LaBrecque A B Borkovec J Morgan
*J Econ Entomol 62(2):522-524*
15 Apr 1969 421 J822
Biological control (insects), Chemical control (insects), Chemosterilants, Fertility, Musca domestica, Sterility. The author lists the compounds tested.

**3203-69**
**THE EXTERNAL MORPHOLOGY AND LIFE HISTORY OF THE PSEUDOSCORPION RONCUS LUBRICUS.**
P D Gabbutt M Vachon
*J Zool 153(4):475-498 REF*
Dec 1967 410.9 L84P
Chelonethida, Insect biology, Insect morphology, Roncus.

**3204-69**
**REARING EULEUCOPHAEUS RUBRIDORSA AND E. LEX (SATURNIIDAE).**

3205-69

B O C Gardiner
*J Res Lepidoptera 6(1):53-58*
Mar 1967 421 J827
Insect physiology, Insect rearing, Saturniidae, Temperature.

3205-69
**LABORATORY REARING OF THE TOBACCO FLEA BEETLE.**
A G Gentile F P Cuthbert
*J Econ Entomol 62(2):513-514*
15 Apr 1969 421 J822
Epitrix hirtipennis, Insect rearing, Insect rearing equipment.

3206-69
**THE PROVENTRICULUS OF SOME TRICHOPTEROUS LARVAE.**
D G Gibbs
*J Zool 152(2):245-256*
Jun 1967 410.9 L84P
Hydropsyche, Insect morphology, Larvae, Polycentropodidae, Trichoptera.

3207-69
**SEASONAL POPULATION CHANGES IN COCOA CAPSIDS (HEMIPTERA, MIRIDAE) IN GHANA.**
D G Gibbs A D Pickett D Leston
*Bull Entomol Res 58(PT 2):279-291 REF*
Nov 1968 421 B87
Cocoa, Distantiella theobroma, Hemiptera, Miridae, Population, Sahlbergella singularis, Seasonal variation.

3208-69
**TYROSINASE ACTIVITY OF THE SYMBIONTS AND FAT BODIES OF THE COCKROACH, LEUCOPHAEA MADERAE.**
C Goldberg L L Pierre
*Can J Microbiol 15(3):253-255 REF*
Mar 1969 448.8 C162
Enzymes, Fat body, Insect genetics, Insect physiology, Leucophaea maderae, Melanins, Parasitic insects, Phenolases, Symbiosis, Synthesis.

3209-69
**FEEDING LARVAE OF THE JAPAN BEETLE IN THE LABORATORY.**
H F Goonewardene D B Zepp
*J Econ Entomol 62(2):514-515*
15 Apr 1969 421 J822
Feeding, Insect rearing, Insect rearing equipment, Larvae, Popillia japonica, Temperature.

3210-69
**ON THE PRESENCE OF ADENOTRIPHOSPHATASE ACTIVITY OF BOTH SODIUM AND POTASSIUM (NA, K ATPASE) IN THE NERVE CORD OF PERIPLANETA AMERICANA. (IT )**
A Grasso E Sampaolo
*Ist Super Sanit Ann 3(5):567-569 REF*
1967 R65.I8
Atpase, Central nervous system, Insect biochemistry, Insect physiology, Periplaneta americana, Potassium, Sodium.

3211-69
**THE CARABIDAE OF ESTONIA. (ES )**
H Haberman
*598P MAP REF TALLINN, USSR, KIRJASTUS VALGUS*
1968 QL596.C2H3
Carabidae, Illustrations, Insect biology, Insect ecology, Insect identification, Insect morphology, Insect taxonomy, Zoogeography. German and Russian summaries.

3212-69
**PSEUDOMONAS AERUGINOSA IN SPECIES OF DIABROTICA.**
E W Hamilton
*J Invertebrate Pathol 12(2):188-191*
Nov 1968 421 J826
Bacteria, Diabrotica, Insect diseases, Pseudomonas aeruginosa.

3213-69
**RADIATION SENSITIVITY OF DROSOPHILA EMBRYOS IN RELATION TO AGE, IN AIR AND IN NITROGEN.**
E Havin P Oftedal
*Int J Radiat Biol 14(2):149-160 REF*
1968 444.8 IN8
Aging, Air, Drosophila, Embryology, Insect biology, Insect physiology, Irradiation, Nitrogen, Radioactivity, X-rays. French and German summaries.

3214-69
**SAMPLING FOR APHIDS BY TRAPS AND BY CROP INSPECTION.**
G D Heathcote J M P Palmer L R Taylor
*Ann Appl Biol 63(1):155-166 REF*
Feb 1969 442.8 AN72
Aphididae, Attractants, Crops, Insect traps, Inspection (agricultural products).

3215-69
**A STUDY OF FREE AMINO ACIDS IN RICE MOTH LARVAE DURING MYCOTOXICOSIS.**
U C Hegde E R B Shanmugasundaram
*Can J Comp Med Vet Sci 32(1):392-394 REF*
Jan 1968 41.8 C162
Amino acids, Aspergillus flavus, Corcyra cephalonica, Insect biology, Larvae, Moths, Mycotoxicosis, Research, Rice.

3216-69
**PREPARATION OF ENTOMOPHAGOUS DIPTERA. (GE )**
B Herting
*Entomophaga 6(2):115-116*
1961 421 EN835
Diptera, Insect biology, Predaceous insects. French summary

3217-69
**DAILY FLUCTUATIONS IN THE CONCENTRATIONS OF TOTAL SUGAR AND URIC ACID IN THE HEMOLYMPH OF PERIPLANETA AMERICANA.**
S D Hilliard A Butz
*Entomol Soc Amer Ann 62(1):71-74 REF*
15 Jan 1969 420 EN82
Diurnal rhythm, Hemolymph, Insect cultures, Insect physiology, Locomotion, Periplaneta americana, Photoperiodism, Sex behavior, Sugar, Temperature, Uric acid.

3218-69
**RNA ISOLATED FROM POLYHEDRA OF A NUCLEAR POLYHEDROSIS OF THE SILKWORM.**
M Himeno K Onodera
*J Invertebrate Pathol 13(1):87-90 REF*
Jan 1969 421 J826
Adenine, Bombyx mori, Cytosine, Guanine, Insect diseases, Polyhedra, Polyhedroses, Ribonucleic acid, Uracil, Virology.

3219-69
**STUDIES ON THE BIOLOGY OF RHYSSA PERSUASORIA (L.) (HYMENOPTERA: ICHNEUMONIDAE) INCORPORATING AN X-RAY TECHNIQUE.**
H Hocking
*Entomol Soc Queensland J 7(1):1-5*
Jun 1968 420 EN823
Biological control (insects), Forest insects, Insect biology, Parasitism, Pinus radiata, Predaceous insects, Rhyssa persuasoria, Sirex noctilio, X-rays.

3220-69
**A REVIEW OF THE PROBLEM OF INSECTICIDE RESISTANCE IN AUSTRALIA.**
G H S Hooper
*Entomol Soc Queensland J 7(1):67-76 REF*
Jun 1968 420 EN823
Acarina, Chemicals, Insect biochemistry, Insect genetics, Insecticide resistant insects, Tables (data). The author lists instances of resistance in Acarines and insect pests and the chemicals involved.

3221-69
**CAFFEINE-INDUCED ACTIVATION OF CONTRACTION IN STICK INSECT SKELETAL MUSCLE.**
H Huddart
*Compar Biochem Physiol 28(3):1185-1192 REF*
Mar 1969 444.8 C73
Bio-electric potential, Caffeine, Carausius morosus, Insect physiology, Muscles.

3222-69
**THE ABSORPTION AND STORAGE OF INSECTICIDE BY AN IN UTERO LARVA OF THE TSETSE FLY GLOSSINA PALLIDIPES AUST.**
N. S. Irving
*Bull Entomol Res 58(PT 2):221-226*
Nov 1968 421 B87
Absorption, Glossina pallidipes, Insect physiology, Insecticides, Larvae, Storage.

3223-69
**LABORATORY MATING BEHAVIOR OF THE PLUM CURCULIO.**
A W Johnson S B Hays
*J Econ Entomol 62(2):438-440*
15 Apr 1969 421 J822
Conotrachelus nenuphar, Insect behavior, Insect physiology.

3224-69
**HYPSIPYLA ROBUSTA MOORE, A NEW HOST FOR BEAUVERIA TENELLA (DELACROIX) SIEMASZKO.**
D Kandasamy
*J Invertebrate Pathol 13(1):149-150*
Jan 1969 421 J826
Beauveria tenella, Entomogenous fungi, Hypsipyla robusta, Insect biology, Insect diseases, Symptomatology.

3225-69
**THE INACTIVATION OF ECDYSONE IN CALLIPHORA ERYTHROCEPHALA MEIGEN. (GE )**
P Karlson C Bode
*J Insect Physiol 15(1):111-118*
Jan 1969 421 J825
Calliphora vicina, Ecdysone, Enzymes, Fat body, Hormones, Insect biochemistry. English summary.

3226-69
**CHANGES IN BODY WEIGHT, FAT, GLYCOGEN, AND PROTEIN DURING DIAPAUSE OF TROGODERMA GRANARIUM.**
G K Karnavar K S S Nair
*J Insect Physiol 15(1):95-103 REF*
Jan 1969 421 J825
Diapause, Fats, Glycogen, Insect biochemistry, Insect metabolism, Proteins, Trogoderma granarium.

3227-69
**CONVERSION OF SERINE TO GLYCINE DURING THE FORMATION OF EGG-SHELLS IN THE SILKWORM, BOMBYX MORI.**
H Kawasaki H Sato M Suzuki N Ojima
*J Insect Physiol 15(1):25-32 REF*
Jan 1969 421 J825
Bombyx mori, Glycine, Insect biochemistry, Insect eggs, Insect morphology, Proteins, Serine, Synthesis.

3228-69
**THE STRUCTURE AND POSSIBLE MODE OF FUNCTIONING OF THE FEMALE REPRODUCTIVE SYSTEM IN NASONIA VITRIPENNIS (HYMENOPTERA: PTEROMALIDAE).**
P E King N A Ratcliff
*J Zool 157(3):319-344 REF*
Mar 1969 410.9 L84P
Host relationships, Insect physiology, Nasonia vitripennis, Parasitic insects, Reproductive organs.

3229-69
**SEASONAL OCCURRENCE AND PHYSIOLOGY OF CULEX TARSALIS IN FOOTHILLS OF FRESNO COUNTY, CALIFORNIA.**
J W Kliewer T Miura H C Chapman
*Entomol Soc Amer Ann 62(1):13-18 REF*
15 Jan 1969 420 EN82

Culex tarsalis, Fat body, Insect biology, Insect ecology, Insect migration, Insect physiology, Larvae, Weather, Zoogeography.

**3230-69**
**THE GIANT BARK BEETLE (DENDROCTONUS MICANS KUGEL) IN GEORGIA (USSR). (GE )**
D Kobachidze
*Anz Schadlingskunde 40(5):65-68*
May 1967 421 AN9
Dendroctonus micans, Insect biology, Insect ecology, Insect migration, Insect nutrition, Insect pests, Predaceous insects, Zoogeography.

**3231-69**
**CONCERNING BACILLUS THURINGIENSIS AND ITS APPLICATIONS. (GE**
A Krieg
*Berlin Biol Bundesanst Land-forstwirtsch Mitt (125):7-106 REF*
Nov 1967 410.9 G31M
Bacillus thuringiensis, Biochemistry, Biological control (insects), Insect diseases, Lepidoptera, Morphology, Pathogenic bacteria, Physiology, Toxins.

**3232-69**
**INFLUENCE OF OOPHAGOUS PARASITES ON THE REGULATION OF THE CASSIDA DEFLORATA SUFF. POPULATION. (FR )**
V Labeyrie
*Entomophaga 6(4):257-263 REF*
1961 421 EN835
Biological control (insects), Cassida deflorata, Insect control, Parasitism, Population. English summary

**3233-69**
**EFFECT OF ALPHA-METHYL-DL-TRYPTOPHAN ON TRYPTOPHAN METABOLISM OF MUSCA DOMESTICA L..**
G A Lancaster T L Sourkes
*Compar Biochem Physiol 28(3):1435-1441 REF*
Mar 1969 444.8 C73
Enzymes, Insect biochemistry, Insect metabolism, Musca domestica, Tryptophan.

**3234-69**
**SYSTEMATIC FOUNDATIONS OF FOREST ANT REPRODUCTION IN GERMANY. (GE )**
R Lange
*Entomophaga 5(1):81-86 REF*
1960 421 EN835
Forest insects, Formica polyctena, Formica rufa, Formicidae, Population, Reproduction, Taxonomy.

**3235-69**
**CHANGES IN REDUCING CARBOHYDRATES AND TREHALOSE DURING DEVELOPMENT OF EGGS FROM YOUNG AND OLD TENEBRIO MOLITOR L.**
D Ludwig G F Rajendram L J Ramazzotto
*N Y Entomol Soc J 76(1):27-31 REF*
29 Mar 1968 420 N48J
Carbohydrates, Insect eggs, Insect morphology, Insect physiology, Tenebrio molitor, Trehalose.

**3236-69**
**THE OCCURENCE OF A RICKETTSIALIKE ORGANISM IN A NOCTUID.**
P Luthy J M Burke
*J Invertebrate Pathol 13(1):158*
Jan 1969 421 J826
Diagnosis, Electron microscopy, Insect diseases, Noctuidae, Rickettsia-like organisms, Rickettsial diseases.

**3237-69**
**PRODUCTION OF FOURTH-INSTAR PINK BOLLWORM LARVAE FROM SODIUM HYPOCHLORITE-TREATED AND UNTREATED EGGS.**
C L Mangum W O Ridgway M T Ouye
*J Econ Entomol 62(2):515*
15 Apr 1969 421 J822
Insect eggs, Insect rearing, Larvae, Pectinophora gossypiella, Sodium hypochlorite.

**3238-69**
**NORTHERN RECORDS OF THE GENUS CULISETA FELT IN AUSTRALIA WITH THE DESCRIPTION OF A NEW SPECIES (DIPTERA: CULICIDAE).**
E N Marks
*Entomol Soc Queensland J 7(1):43-56 REF*
Jun 1968 420 EN823
Culiseta, Insect biology, Insect identification, Insect taxonomy, Zoogeography. Other species of culiseta are described.

**3239-69**
**A CYTOPLASMIC POLYHEDROSIS OF HEMEROCAMPA PSEUDOTSUGATA.**
M E Martignoni P J Iwai K M Hughes R B Addison
*J Invertebrate Pathol 13(1):15-18*
Jan 1969 421 J826
Biological assay, Hemerocampa pseudotsugata, Histochemistry, Inclusion bodies, Insect diseases, Insect histology, Larvae, Polyhedroses, Virology.

**3240-69**
**NUTRIENTS DERIVED FROM THE FUNGUS CULTURED BY THE FUNGUSGROWING ANT ATTA COLUMBIA TONSIPES.**
M M Martin R M Carman J G MacConnell
*Entomol Soc Amer Ann 62(1):11-13*
15 Jan 1969 420 EN82
Amino acids, Carbohydrates, Culture media, Ergosterol, Formicidae, Glucose, Insect nutrition, Lipids, Mannitol, Proteins, Sterols, Trehalose.

**3241-69**
**INFLUENCE OF LARVAL POPULATION DENSITY ON THE DEVELOPMENT OF CERATITIS CAPITATA WIED. II. (SP )**
M L Martinez-Beringola
*Soc Espan Hist Natur Bol Secc Biol 64(4):351-360*
1966 442.9 SO18
Ceratitis capitata, Density, Fertility, Insect morphology, Insect populations, Larvae, Longevity, Quantitative analysis. English summary.

**3242-69**
**THE GENUS CROTCHIA FOWLER (COL. LANGURIIDAE). III. SPECIES WITH PARALLEL-SIDED ELYTRA. (POR )**
U R Martins C Costa
*Sao Paulo Dep Zool Papeis Avulsos 20(6):59-64*
28 Mar 1967 410.9 SA63
Crotchia, Insect taxonomy, Languriidae, Zoogeography. English abstract.

**3243-69**
**TRANSFER OF CHEMOSTERILANT BY TEPA-STERILIZED MEXICAN FRUIT FLIES.**
M W McFadden
*J Econ Entomol 62(2):511-512*
15 Apr 1969 421 J822
Anastrepha ludens, Biological control (insects), Chemical control (insects), Chemosterilants, Sterility, Tepa.

**3244-69**
**DIGESTIBILITY STUDIES WITH CELLULOSE-U-C14 ON LARVAE OF THE PALE WESTERN CUTWORM, AGROTIS ORTHOGONIA.**
A J McGinnis R Kasting
*J Insect Physiol 15(1):5-10 REF*
Jan 1969 421 J825
Agrotis orthogonia, Carbon isotopes, Cellulose, Insect diets, Insect metabolism, Insect physiology, Larvae.

**3245-69**
**DEVELOPMENT OF THE BAIT PRINCIPLE FOR BOLL-WEEVIL CONTROL. III. FIELD-CAGE TESTS WITH A FEEDING STIMULANT AND THE PROTOZOANS MATTESIA GRANDIS (NEOGREGARINIDA) AND A MICROSPORIDIAN.**
R E McLaughlin R J Daum M R Bell
*J Invertebrate Pathol 12(2):168-174*
Nov 1968 421 J826
Anthonomus grandis, Baits, Feeding, Insect cages, Insect control, Mattesia grandis, Morphology, Stimulants.

**3246-69**
**THE CONTRIBUTION OF ITALY TO RESEARCH CONCERNING THE USE OF NUCLEAR ENERGY IN INSECT CONTROL. (IT )**
A Melis
*Accad Naz Ital Entomol Atti 10:32-41*
1962 420 AC2
Dacus oleae, Energy, Insect control, Irradiation, Musca domestica, Polyploidy, Research, X-rays.

**3247-69**
**SITE OF ACTION OF PHARMACOLOGICALLY ACTIVE COMPOUNDS ON THE HEART OF PERIPLANETA AMERICANA L.**
T Miller R L Metcalf
*J Insect Physiol 14(3):383-394 REF*
Mar 1968 421 J825
Acetylcholine, Arecoline, Atropine, Dorsal vessel, Myocardium, Nerves, Periplaneta americana, Pharmacology.

**3248-69**
**MINOR BROOD DISEASES AND DISORDERS.**
*Great Brit Min Agr Fish Food Adv Leafl (561):1-5*
Apr 1968 10 G79LA
Apiculture, Bee diseases, Disease control, Fungus diseases (insects), Galleriidae, Insect genetics, Sacbrood, Temperature.

The causal agents, symptoms and treatments of several brood diseases of bees are presented. Destruction of the colony and/or requeening are the recommended control measures in most cases.

**3249-69**
**NOSEMA DISEASE AND AMOEBA DISEASE.**
*Great Brit Min Agr Fish Food Adv Leafl (473):1-8*
Apr 1968 10 G79LA
Acetic acid, Apis mellifera, Fumagillin, Insect diseases, Malpighamoeba mellificae, Nosema apis, Nosema disease.

The epizootiology, diagnosis, and treatment of nosema and amoeba diseases in honey bees and the life cycles of the causal organisms are discussed. Clean combs, fumigation with acetic acid and drug therapy with fumagillin are recommended control measures.

**3250-69**
**LANGSTROTH AND MODIFIED DADANT(M D) HIVES.**
*Great Brit Min Agr Fish Food Adv Leafl (549):1-6*
May 1967 10 G79LA
Apiaries, Apiculture, Insect rearing equipment, Methodology.

Construction methods are provided for both Langstroth and modified Dadant bee hives.

**3251-69**
**EFFECT OF THE BRAIN ON THE SUB-OESOPHAGEAL GANGLION AND DETERMINATION OF VOLTINISM IN BOMBYX MORI.**
S Morohoshi T Oshiki
*J Insect Physiol 15(1):167-175*
Jan 1969 421 J825
Bombyx mori, Brain, Ganglion cells, Insect physiology.

**3252-69**
**DIFFERENCES BETWEEN THE INVERTEBRATE FAUNAS OF GRAZED AND UNGRAZED CHALK GRASSLAND. II. THE FAUNAS OF SAMPLE TURVES.**
M G Morris
*J Appl Ecol 5(3):601-611 REF*
Dec 1968 410 J828
Berlese funnel, Grazing, Insect ecology, Invertebrates, Pastures, Ranges.

**3253-69**
**SUSCEPTIBILITY OF SEVERAL FOREST INSECTS OF BRITISH COLUMBIA TO COMMERCIALLY PRODUCED BACILLUS THURINGIENSIS. I. STUDIES ON THE PHYSIOLOGICAL PROPERTIES OF SOME COMMERCIAL PRODUCTS.**
O N Morris
*J Invertebrate Pathol 13(1):134-146 REF*
Jan 1969 421 J826
Bacillus thuringiensis, Bacteriology, Biochemistry, Biological control (insects), Canada, Culture media, Forest insects, Insect disease resistance, Insect diseases, Physiology, Susceptibility.

**3254-69**
**STUDIES ON THE DISPERSAL OF DIELDRIN-RESISTANT CABBAGE ROOT FLY.**
D J Mowat T H Coaker
*J Appl Ecol 5(3):591-599 REF*
Dec 1968 410 J828
Chlorinated hydrocarbons, Dieldrin, Erioischia brassicae, Genes, Insect dissemination, Insecticide resistant insects.

**3255-69**
**THE DISTANCE- AND CONTACT-ORIENTATION OF MOSQUITOES (AEDES AEGYPTI). (HOST FINDING, BITING AND BLOOD-SUCKING). (GE )**
W Muller
*Z Vergleichende Physiol 58(3):241-303 REF*
15 Mar 1968 444.8 Z3
Aedes aegypti, Chemoreceptors, Insect behavior, Insect physiology, Olfactometers. English summary.

**3256-69**
**METABOLISM OF S35-PARATHION IN THE HOUSE FLY.**
T Nakatsugawa N M Tolman P A Dahm
*J Econ Entomol 62(2):408-411 REF*
15 Apr 1969 421 J822
Insect biochemistry, Insect metabolism, Musca domestica, Parathion, Sulfur isotopes.

**3257-69**
**EFFECTS OF RAINFALL ON RANGE FORAGE AND POPULATIONS OF GRASSHOPPERS, SAN CARLOS APACHE INDIAN RESERVATION, ARIZONA.**
N J Nerney A G Hamilton
*J Econ Entomol 62(2):329-333*
15 Apr 1969 421 J822
Forage plants, Grasshoppers, Insect behavior, Insect populations, Rainfall. The author lists the different types of vegetation in the area and response of insect populations.

**3258-69**
**THE LEAFHOPPER VECTORS OF PHYTOPATHOGENIC VIRUSES (HOMOPTERA, CICADELLIDAE) TAXONOMY, BIOLOGY, AND VIRUS TRANSMISSION.**
M W Nielson
*U S D A Tech Bull 1382:386P REF*
Aug 1968 1 AG84TE
Cicadellidae, Homoptera, Insect biology, Insect taxonomy, Insect vectors, Virus diseases (plants), Zoogeography.

**3259-69**
**POPULATION BIOLOGY OF TROPICAL AFRICAN BUTTERFLIES. SEX RATIO AND GENETIC VARIATION IN ACRAEA ENCEDON.**
D F Owen D O Chanter
*J Zool 157(3):345-374*
Mar 1969 410.9 L84P
Acraea encedon, Insect genetics, Polymorphism, Population, Sex.

**3260-69**
**SUMMARY OF CHEMICAL, PHYSICAL, BIOLOGICAL AND MEDICAL RESEARCH ON PEDERIN, EXTRACTED FROM THE COLEOPTERA PAEDERUS FUSCIPES CURT. (IT )**
M Pavan
*Accad Naz Ital Entomol Atti 10:119-124*
1962 420 AC2
Biochemistry, Extracts, Paederus fuscipes, Pharmacology, Research, Toxins. French summary

**3261-69**
**HEDGES. IV. A COMPARISON BETWEEN THE CARABIDAE OF A HEDGE AND FIELD SITE AND THOSE OF A WOODLAND GLADE.**
E Pollard
*J Appl Ecol 5(3):649-657 MAP REF*
Dec 1968 410 J828
Carabidae, Habitats, Insect ecology, Insect physiology, Insect traps, Zoogeography.

**3262-69**
**A STUDY OF AREA OCCUPATION AND MATING BEHAVIOR IN INCISALIA IROIDES (LEPIDOPTERA: LYCAENIDAE).**
J A Powell
*N Y Entomol Soc J 76(1):47-57 REF*
29 Mar 1968 420 N48J
Incisalia iroides, Insect behavior, Lycaenidae, Sex behavior.

**3263-69**
**RESEARCH ON OOGENESIS, FERTILIZATION, EGG SEGMENTATION, AND SPERMATOGENESIS IN CALOGLYPHUS BERLESEI MICHAEL 1903 AND C. MICHAELI OUDEMANS 1924 (ACARI, ACARIDAE). (GE )**
J Prasse
*Biol Zentralbl 87(6,NOV-DEC):757- 775 REF*
Dec 1968 442.8 B523
Caloglyphus, Embryology, Insect eggs, Insect physiology, Oogenesis, Reproduction, Spermatogenesis. English abstract

**3264-69**
**CONTRIBUTIONS TO THE STUDY OF THE MORPHO-FUNCTIONAL CONSTITUTION OF THE FEMALE EXTERNAL GENITALIA IN CHALCIDS. (RUM**
V G Radu M Botoc
*Cluj Studia Univ Babes Bolyai 13(2):71-76*
1968 403 C622
Chalcididae, Insect morphology, Insect physiology, Reproductive organs. English and Russian summaries.

**3265-69**
**STUDIES ON THE PHOSPHOLIPASE A IN LARVAE OF CULEX PIPIENS FATIGANS.**
R H Rao D Subrahmanyam
*J Insect Physiol 15(1):149-159 REF*
Jan 1969 421 J825
Culex pipiens quinquefasciatus, Enzymes, Insect biochemistry, Larvae, Phospholipase.

**3266-69**
**A MIXED COLONY OF TWO SPECIES OF PLEBEIA (HYMENOPTERA, APOIDEA). (POR )**
J A Rezende
*Sao Paulo Dep Zool Papeis Avulsos 20(2):9-12*
28 Mar 1967 410.9 SA63
Apoidea, Bee behavior, Nesting habits, Social insects. English abstract

**3267-69**
**RESISTANCE TO AMERICAN FOULBROOD IN HONEY BEES. X. COMPARATIVE MORTALITY OF QUEEN, WORKER, AND DRONE LARVAE.**
T E Rinderer W C Rothenbuhler
*J Invertebrate Pathol 13(1):81-86 REF*
Jan 1969 421 J826
American foulbrood, Apis mellifera, Bacillus larvae, Insect disease resistance, Insect diseases, Insect physiology, Larvae, Mortality.

**3268-69**
**THE DETERMINING FACTORS IN THE APPEARANCE OF WINGED FORMS AMONG APHIDS. (IT )**
D Roberti
*Accad Naz Ital Entomol Atti 9:21-30 REF*
1961 420 AC2
Aphididae, Humidity, Insect genetics, Insect morphology, Insect nutrition, Temperature, Wings (insects).

**3269-69**
**SENSITIVITY OF TORTRICIDAE LARVAE TO THE ACTION OF CRYSTALS ASSOCIATED WITH THE THERMOSTABLE TOXIN OF BACILLUS THURINGIENSIS BERLINER, SEROTYPE I. (FR )**
R Roehrich
*Phytiat-phytopharm 16(2):91-95*
Jun 1967 464.8 P564
Bacillus thuringiensis, Carpocapsa pomonella, Grapholitha molesta, Heat, Larvae, Lobesia botrana, Tortricidae.

**3270-69**
**RESISTANCE TO AMERICAN FOULBROOD IN HONEY BEES. IX. EFFECTS OF HONEY-BEE LARVAL FOOD ON THE GROWTH AND VIABILITY OF BACILLUS LARVAE.**
R I Rose J D Briggs
*J Invertebrate Pathol 13(1):74-80 REF*
Jan 1969 421 J826
American foulbrood, Apis mellifera, Bacillus larvae, Food, Growth factors, Inhibitors, Insect disease resistance, Insect diseases, Larvae, Quantitative analysis.

**3271-69**
**CHEMICAL CONTROL OF AN ORGANOPHOSPHORUS- AND CARBAMATE-RESISTANT STRAIN OF BOOPHILUS MICROPLUS (CAN.) FROM QUEENSLAND.**
W J Roulston B F Stone J T Wilson L I White
*Bull Entomol Res 58(PT 2):379-392 REF*
Nov 1968 421 B87
Boophilus annulatus microplus, Carbamates, Chemical control (insects), Insecticide resistant insects, Organic compounds, Phosphorus.

**3272-69**
**METHOD OF HINDERING THE METAMORPHOSIS AND REPRODUCTION OF ARTHROPODES. PATENT 3,429,970.**
R Ruegg P Schmialek
*Us Patent Office Offic Gaz 859(4):1250-1251*
25 Feb 1969 156.65 OF2
Arthropoda, Insect reproduction, Insecticides, Metamorphosis, Methodology, Patents.

**3273-69**
**STUDIES OF AN INSECT MYCOSIS. I. HISTOPATHOLOGY OF THE INTEGUMENT OF THE INFECTED QUEEN OF THE MOUND-BUILDING TERMITE ODONTOTERMES OBESUS.**
A Sannasi
*J Invertebrate Pathol 13(1):4-10 REF*
Jan 1969 421 J826
Aspergillus flavus, Cuticle, Entomogenous fungi, Histochemistry, Insect diseases, Insect histology, Mycosis, Odontotermes obesus, Phenols.

**3274-69**
**STUDIES OF AN INSECT MYCOSIS. II. BIOCHEMICAL CHANGES IN THE BLOOD OF THE QUEEN OF THE MOUND-BUILDING TERMITE ODONTOTERMES OBESUS ACCOMPANYING FUNGAL INFECTION.**
A Sannasi
*J Invertebrate Pathol 13(1):11-14 REF*
Jan 1969 421 J826
Ascorbic acid, Aspergillus flavus, Biochemistry, Blood analysis, Entomogenous fungi, Insect diseases, Melanosis, Mycosis, Odontotermes obesus, Tyrosine.

**3275-69**
**MYCETANGIAL GLANDS AND THEIR SEASONAL CHANGES IN GNATHOTRICHUS RETUSUS AND G. SULCATUS.**
I A Schneider J A Rudinsky
*Entomol Soc Amer Ann 62(1)39-43*
15 Jan 1969 420 EN82
Fungi, Gnathotrichus retusus, Gnathotrichus sulcatus, Hibernation, Insect flight, Insect physiology, Secretion, Symbiosis, Temperature, Weather.

**3276-69**
**INVESTIGATIONS CONCERNING THE CONTROL OF THE APPLE MOTH (CARPOCAPSA POMONELLA (L.)) WITH THE AID OF TRICHOGRAMMA EMBRYOPHAGUM HARTIG. (6E )**
F Schuette J M Franz
*Entomophaga 6(4):237-247 REF*
1961 421 EN835
Biological control (insects), Carpocapsa pomonella, Insect control, Research, Trichogramma embryophagum, Trichogrammatidae. English summary

**3277-69**
**ATTRACTANTS FOR THE JAPANESE BEETLE.**
P H Schwartz D W Hamilton
*J Econ Entomol 62(2):516-517*
15 Apr 1969 421 J822
Attractants, Popillia japonica. The author lists the compounds tested as attractants.

**3278-69**
**THE ECOLOGY OF THE IMMATURE STAGES OF AEDES DETRITUS (DIPTERA: CULICIDAE).**
M W Service
*J Appl Ecol 5(3):613-630 MAP REF*
Dec 1968 410 J828
Aedes detritus, Insect ecology, Insect eggs, Larvae, Marshes.

**3279-69**
**BORON CHEMOSTERILANTS AGAINST SCREW-WORM FLIES: STRUCTURE-ACTIVITY RELATIONSHIP.**
J A Settepani M M Crystal A B Borkovec
*J Econ Entomol 62(2):375-383*
15 Apr 1969 421 J822
Biological control (insects), Boron compounds, Chemical control (insects), Chemosterilants, Cochliomyia hominivorax, Hydrolysis, Insect mortality, Oviposition.

**3280-69**
**CHANGES IN HEMOLYMPH TOTAL SOLIDS AND BLOOD VOLUME OF THE GREATER WAX MOTH, GALLERIA MELLONELLA, DURING THE COURSE OF STARVATION.**
M Shapiro
*J Invertebrate Pathol 13(1):63-67 REF*
Jan 1969 421 J826
Blood analysis, Blood volume, Experimental insects, Galleria mellonella, Hemolymph, Quantitative analysis, Starvation.

**3281-69**
**AN ELECTRON MICROSCOPE STUDY OF CHANGES IN MITOCHONDRIA OF FLIGHT MUSCLE OF AGEING HOUSEFLIES (MUSCA DOMESTICA).**
J Simon P L Bhatnagar N S Milburn
*J Insect Physiol 15(1):135-140 REF*
Jan 1969 421 J825
Electron microscopy, Glycogen, Insect biochemistry, Insect flight, Mitochondria, Musca domestica, Muscles.

**3282-69**
**OILS: THEIR EFFECT ON BLACK CARPET BEETLE LARVAE WHEN APPLIED TO DIFFERENT TYPES OF SURFACES.**
J W Slominski W L Gojmerac W E Burkholder
*J Econ Entomol 62(2):507-508*
15 Apr 1969 421 J822
Attagenus megatoma, Chemical control (insects), Insect mortality, Mineral oil, Surface-active agents.

**3283-69**
**A TECHNIQUE FOR MASS REARING THE SOUTHERN ARMYWORM IN THE LABORATORY.**
Z Smilowitz J E Dewey
*J Econ Entomol 62(2):502-503*
15 Apr 1969 421 J822
Insect physiology, Insect rearing, Insect rearing equipment, Methodology, Prodenia eridania.

**3284-69**
**THE INFLUENCE OF CLIMATIC FACTORS ON THE DEVELOPMENT OF CLYSIANA AMBIGUELLA HB. (IT )**
M Solinas
*Accad Naz Ital Entomol Atti 10:125-132 REF*
1962 420 AC2
Climate, Clysiana ambiguella, Demography, Insect behavior, Insect morphology, Zoogeography. English summary.

**3285-69**
**A SIMPLE METHOD FOR MEASURING THE MOTOR ACTIVITY OF FLEAS (XENOPSYLLA CHEOPID ROTH.).**
S Sternberg M Bar-Zeev
*Riv Parassitol 27(2):143-148*
Jun 1966 436.8 R52
Aging, Insect physiology, Locomotion, Measurement, Temperature, Xenopsylla cheopis. Italian summary.

**3286-69**
**NOTES ON THE BIOLOGY AND REARING OF ANAPHES OVIJENTATUS, A NEW PARASITE OF LYGUS HESPERUS IN ARIZONA.**
A Stoner D E Surber
*J Econ Entomol 62(2):501-502*
15 Apr 1969 421 J822
Anaphes ovijentatus, Insect biology, Insect cages, Insect rearing, Lygus hesperus, Parasitic insects.

**3287-69**
**CONTRIBUTIONS TO THE BIOLOGY OF DIRHICNUS ALBOANNULATUS (RATZ.) (HYM. CHALCIDIDAE) AS A BASIS FOR MASS PRODUCTION FOR BIOLOGICAL CONTROL. (GE )**
A Szmidt
*Entomophaga 5(2):155-162*
1960 421 EN835
Biological control (insects), Biology, Chalcididae, Dirhicnus alboannulatus, Hymenoptera. English summary

**3288-69**
**RESPONSE OF OVERWINTERED BOLL WEEVILS TO REFLECTED LIGHT, ODOR, AND ELECTROMAGNETIC RADIATION.**
H M Taft A R Hopkins H R Agee
*J Econ Entomol 62(2):419-424 REF*
15 Apr 1969 421 J822
Anthonomus grandis, Attractants, Electromagnetic waves, Hibernation, Insect behavior, Insect physiology, Light, Smell.

**3289-69**
**APHID TRAPPING.**
*Tasmanian J Agr 39(2):105*
May 1968 23 T182T
Aphididae, Insect collecting equipment, Insect traps, Suction traps.

**3290-69**
**SEX DIFFERENCES IN LONGEVITY OF STARVED COCKROACHES (LEUCOPHAEA MADERAE).**
R L Taylor W C Freckleton
*J Invertebrate Pathol 13(1):68-73*
Jan 1969 421 J826
Experimental insects, Injections, Insect nutrition, Leucophaea maderae, Longevity, Sex, Starvation, Statistical analysis.

**3291-69**
**RESPONSES OF THE PALES WEEVIL TO NATURAL AND SYNTHETIC HOST ATTRACTANTS.**
H A Thomas G D Hertel
*J Econ Entomol 62(2):383-386 REF*
15 Apr 1969 421 J822
Attractants, Biological assay, Hylobius pales, Insect behavior, Pinus taeda, Plant extracts, Terpenoids. The author lists the extracts used and the chemicals tested and the insect responses.

**3292-69**
**A POLYETHYLENE BAG FOR DISPERSING THE SYNTHETIC SEX PHEROMONE OF THE CABBAGE LOOPER.**
H H Toba A N Kishaba W W Wolf
*J Econ Entomol 62(2):517-518*
15 Apr 1969 421 J822
Bags, Pheromones, Polyethylene, Sex attractants, Trichoplusia ni.

**3293-69**
**OSMOTIC PRESSURE OF HEMOLYMPH OF RHYNCHOSCIARA ANGELAE NONATO AND PAVAN, 1951 (DIPTERA, MYCETOPHILIDAE). (POR )**
M Tokumaru M D G Ferri T U Worsmann
*Rev Brasil Biol 28(4):439-445 REF*
Dec 1968 442.8 R326
Hemolymph, Insect physiology, Larvae, Osmotic pressure, Rhynchosciara. English abstract

**3294-69**
**RESISTANCE TO CHLORINATED HYDROCARBONS IN CULEX PIPIENS QUINQUEFASCIATUS IN EGYPT.**
A Toppozada S M Madi M E Eldefrawi
*J Econ Entomol 62(2):440-442 REF*
15 Apr 1969 421 J822
Chlorinated hydrocarbons, Culex pipiens quinquefasciatus, Insect behavior, Insect physiology, Insecticide resistant insects, Insecticides, Susceptibility. The author lists the toxicity of insecticides to the larvae and the adult Culex pipiens quinquefasciatus.

**3295-69**
**PUPAL DEVELOPMENT AND MOTH EMERGENCE OF THE RED BOLLWORM (DIPAROPSIS CASTANEA)HMPS. IN MALAWI AND RHODESIA.**
J P Tunstall
*Bull Entomol Res 58(PT 2):233-254*
Nov 1968 421 B87
Diparopsis castanea, Insect morphology, Pupae, Zoogeography.

**3296-69**
**MASS PRODUCTION OF INSECT VIRUSES DURING THE SHEDDING OF THE PUPAL SKIN. (FR )**
C Vago P Atger
*Entomophaga 6(1):53-56*
1961 421 EN835
Cuticle, Insect diseases, Molting (insects), Morphology, Pupae, Viruses. German summary

**3297-69**
**THE CONSERVATION OF VIRUSES AND ENTOMOPATHOGENOUS BACTERIA IN TABLET FORM. (FR )**
C Vago D Martouret F Heitor
*Entomophaga 6(3):185-189*
1961 421 EN835
Bacteria, Biological control (insects), Biology, Bombyx mori, Insect diseases, Pest control, Porthetria dispar, Viruses. German summary

**3298-69**
**POLYHEDRAL SENSITIVITY OF THE CATERPILLARS OF BOMBYX DISPARATE (LYMANTRIA DISPAR L.) DURING THE VARIOUS GRADATION PHASES OF THEIR DEVELOPMENT IN NATURE. (FR )**
L Vasiljevic
*Entomophaga 6(4):269-276 REF*
1961 421 EN835
Allergies, Bombyx, Caterpillars, Morphology, Polyhedroses, Porthetria dispar. English summary

**3299-69**
**DISTRIBUTIONAL NOTES ON METAMASIUS (COLEOPTERA:CURCULIONIDAE).**
P Vaurie
*N Y Entomol Soc J 76(1):32-33*
29 Mar 1968 420 N48J
Curculionidae, Metamasius, Zoogeography.

3300-69
**THE REPRODUCING CAPACITY OF GAMMA-IRRADIATED ADULT MALES OF THE CONFUSED FLOUR BEETLE.**
A Vereecke
*J Econ Entomol 62(6):357-359*
15 Apr 1969 421 J822
Biological control (insects), Chemical control (insects), Cobalt isotopes, Dosage, Fertility, Gamma rays, Insect reproduction, Tribolium confusum.

3301-69
**RELATIVE EFFICACY OF DIFFERENT INSECTICIDES, AS CONTACT POISONS, TO THE ADULTS OF SINGHARA BEETLE, GALERUCELLA BIRMANICA JACOBY, (COLEOPTERA: CHRYSOMELLIDAE).**
A N Verma G S Sandhu P U Saramma
*Prog Farming 4(3):415-419*
Sep 1967 S19.P8
Chemicals, Galerucella birmanica, Insecticides, Laboratories, Mortality, Poisons, Research, Spraying.

3302-69
**NUTRITION OF THE ALMOND MOTH. I. ANALYSIS AND IMPROVEMENTS OF THE EXPERIMENTAL DIET.**
R E Waites S Gothilf
*J Econ Entomol 62(2):301-305*
15 Apr 1969 421 J822
Cadra cautella, Insect diets, Insect nutrition, Larvae, Vitamins. The author lists the ingredients of the diets and the vitamins and fatty acids tested.

3303-69
**POPULATION MODELS FOR SUPRESSION OF THE SUGARCANE BORER BY INHERITED PARTIAL STERILITY.**
D W Walker K B Pedersen
*Entomol Soc Amer Ann 62(1):21-26 REF*
15 Jan 1969 420 EN82
Diatraea saccharalis, Experimental insects, Insect control, Insect genetics, Insect rearing, Models, Population, Sex ratios, Sterility, Sugarcane.

3304-69
**CHRONIC MELANIZATION IN THE EGGS OF AEDES AEGYPTI.**
W F Walker R E Menzer
*Entomol Soc Amer Ann 62(1):7-11 REF*
15 Jan 1969 420 EN82
Aedes aegypti, Copper, Experimental insects, Fetal membranes, Hydrogen-ion concentration, Insect eggs, Insect physiology, Larvae, Melanization, Nitrogen, Sodium chloride, Temperature.

3305-69
**REARING SOD WEBWORMS ON ARTIFICIAL DIETS.**
A G Ward B C Pass
*J Econ Entomol 62(2):510-511*
15 Apr 1969 421 J822
Crambus, Insect diets, Insect nutrition, Insect rearing. The author lists the ingredients of the artificial diets.

3306-69
**BIOLOGICAL EFFECTS OF STARVATION ON THE GARDEN SYMPHYLAN.**
J S Waterhouse R Seymour E W Rutkowski
*J Econ Entomol 62(2):338-341*
15 Apr 1969 421 J822
Cultural control (insects), Insect biology, Longevity, Molting (insects), Scutigerella immaculata, Starvation, Symphyla.

3307-69
**THE INFLUENCE OF THE WIDTH OF BLACK STRIPES ON VISUAL GONIOMETRY IN THE BEE (APIS MELLIFERA). (GE )**
R Wehner
*Z Vergleichende Physiol 58(3):322-343 REF*
15 Mar 1968 444.8 Z3
Apis mellifera, Insect physiology, Tables (data), Testing, Vision. English summary.

3308-69
**THE BROWN-BANDED COCKROACH IN HAMBURG. (GE )**
H Weidner
*Prakt Schadlingsbekampfer 20(1):1-3 REF*
Jan 1968 421 P882
Aldrin, Blattidae, Chemical control (insects), Chlordane, DDT, Heptachlor, Insect behavior, Insect identification, Insect names, Lindane, Supella supellectilium, Zoogeography.

3309-69
**ELECTRON-MICROSCOPE STUDIES OF RICKETTSIELLA CHIRONOMI IN THE MIDGE CAMPTOCHIRONOMUS TENTANS.**
J Weiser Z Zizka
*J Invertebrate Pathol 12(2):222-230 REF*
Nov 1968 421 J826
Camptochironomus tentans, Electron microscopes, Insect diseases, Research, Rickettsial diseases.

3310-69
**THE INFECTION OF LEAFHOPPERS BY WESTERN X-DISEASE VIRUS. VI. CYTOPATHOLOGICAL INTERRELATIONSHIPS.**
R F Whitcomb D D Jensen J Richardson
*J Invertebrate Pathol 12(2):202-221 REF*
Nov 1968 421 J826
Cicadellidae, Colladonus montanus, Cytology, Fruit, Insect vectors, Virus diseases (insects), Western X.

3311-69
**EVIDENCE OF A SECOND GENERATION OF THE ALFALFA WEEVIL IN SOUTHERN ILLINOIS.**
C E White E J Armburst J R DeWitt S J Roberts
*J Econ Entomol 62(2):509-510*
15 Apr 1969 421 J822
Hypera postica, Insect genetics, Insect physiology, Sex behavior.

3312-69
**CELL DEATH DURING EARLY MORPHOGENESIS: PARALLELS BETWEEN INSECT LIMB AND VERTEBRATE LIMB DEVELOPMENT.**
J M Whitten
*Science 163(3874):1456-1457*
28 Mar 1969 470 SCI2
Animal morphology, Cells, Death, Ducks, Extremities, Insect morphology, Sarcophaga bullata.

3313-69
**CHEMICAL STRUCTURE AND JUVENILE HORMONE ACTIVITY: COMPARATIVE TESTS ON RHODNIUS PROLIXUS.**
V B Wigglesworth
*J Insect Physiol 15(1):73-94 REF*
Jan 1969 421 J825
Biological assay, Dosage, Enzymes, Insect biochemistry, Juvenile hormone, Rhodnius prolixus.

3314-69
**SOME RELATIONSHIPS BETWEEN PLANT LICE (APHIDIDAE) AND THEIR PARASITES. (GE )**
H Wilbert
*Z Angew Entomol 61(4):396-401*
May 1968 421 Z36
Aphelinus, Aphididae, Diaeretiella rapae, Insect behavior, Insect protective devices, Ovulation, Parasitic insects. English summary.

3315-69
**ZECTRAN AND NALED AFFECT INCIDENCE OF PARASITISM OF THE BUDWORM CHORISTONEURA OCCIDENTALIS IN MONTANA.**
C B Williams G S Walton C F Tiernan
*J Econ Entomol 62(2):310-312*
15 Apr 1969 421 J822
Apanteles, Chemical control (insects), Choristoneura occidentalis, Dimethylamino-3,5-xylyl methylcarbamate, 4-, Forest insects, Insect population control, Naled, Parasitic insects, Spraying.

3316-69
**INSECT PARASITES OF THE WINTER MOTH, OPEROPHTERA BRUMATA (L.) (LEPIDOPTERA: GEOMETRIDAE) IN WESTERN EUROPE.**
H G Wylie
*Entomophaga 5(2):111-129 MAP REF*
1960 421 EN835
Insect behavior, Lepidoptera, Operophtera brumata, Parasitic insects, Parasitism, Predaceous insects.

3317-69
**DIELDRIN AND DDT RESISTANCE OF CULEX PIPIENS FATIGANS IN THAILAND.**
M Yasuno Y Purivethaya C Harinasuta
*Jap J Exp Med 37(6):535-546 REF*
Dec 1967 448.8 J272
Culex pipiens quinquefasciatus, Dieldrin, DDT, Insecticide resistant insects.

3318-69
**SUSCEPTIBILITY OF MANSONIA MOSQUITOES TO CERTAIN INSECTICIDES IN THAILAND.**
M Yasuno Y Purivethaya V Kerdpibule C Harinasuta
*Jap J Exp Med 37(6):547-558 REF*
Dec 1967 448.8 J272
Culicidae, Dieldrin, DDT, Insecticide resistant insects, Insecticides, Larvae, Malathion.

3319-69
**SUSCEPTIBILITY OF LARVAE OF CULEX PIPENS FATIGANS TO ORGANOPHOSPHOROUS.**
M Yasuno V Kerdpibule
*Jap J Exp Med 37(6):559-562*
Dec 1967 448.8 J272
Culex pipiens quinquefasciatus, Insecticide resistant insects, Larvae, Organophosphorus compounds.

3320-69
**NEUTRAL LIPID METABOLISM DURING EMBRYONIC DEVELOPMENT OF THE INDIAN-MEAL MOTH, PLODIA INTERPUNCTELLA (HUBNER).**
W J Yurkiewicz J Oelsner
*Compar Biochem Physiol 28(2):955-959 REF*
Feb 1969 444.8 C73
Embryology, Insect biochemistry, Insect metabolism, Lipids, Plodia interpunctella.

3321-69
**INFLUENCE OF CECROPIA OIL ON THE CUTICLE OF TENEBRIO MOLITOR.**
E Zlotkin H Z Levinson
*J Insect Physiol 15(1):105-110 REF*
Jan 1969 421 J825
Cuticle, Hyalophora cecropia, Insect histology, Juvenile hormone, Tenebrio molitor.

## GENETICS

3322-69
**ON THE PROBLEM OF GENETIC SIMILARITY BETWEEN SIBLING SPECIES--PUFFING PATTERNS IN DROSOPHILA MELANOGASTER AND DROSOPHILA SIMULANS.**
M Ashburner
*Amer Natur 103(930,MAR-APR):189-191 REF*
30 Apr 1969 470 AM36
Chromosomes, Drosophila melanogaster, Drosophila simulans, Insect genetics, Insect morphology, Larval growth.

3323-69
**MATERNAL CONTROL OF HETEROSIS FOR YIELD IN DROSOPHILA MELANOGASTER.**
B W Barnes
*Heredity 23(4):563-572 REF*
Nov 1968 443.8 H42

Drosophila melanogaster, Heterosis, Insect genetics.

**3324-69**
**LAMPBRUSH Y CHROMOSOMES IN THE COURSE OF SPERMATOGENESIS OF DROSOPHILA. IN: EXPERIMENTAL EMBRYOLOGY TO MOLECULAR BIOLOGY. EDITED BY E. WOLFF. (FR )**
W Beermann O Hess G F Meyer
*67-88 REF PARIS, DUNOD*
1967 QH431.W6
Chromosomes, Deoxyribonucleic acid, Drosophilidae, Electron microscopy, Insect genetics, Mutation, Proteins, Ribonucleic acid, Spermatocytes, Spermatogenesis.

**3325-69**
**GENETICAL INVESTIGATIONS ON A STRAIN OF HOUSE-FLIES RESISTANT TO ORGANOPHOSPHORUS AND CARBAMATES.**
J D Bell
*Bull Entomol Res 58(PT 2):191-200 REF*
Nov 1968 421 B87
Carbamates, Insect genetics, Insecticide resistant insects, Musca domestica, Organic compounds, Phosphorus, Research.

**3326-69**
**LIPIDS OF DROSOPHILA: A NEWLY DETECTED LIPID IN THE MALE.**
F M Butterworth
*Science 163(3873):1356-1357*
21 Mar 1969 470 SCI2
Chromatography, Chromosomes, Drosophila melanogaster, Insect biochemistry, Insect genetics, Lipids.

**3327-69**
**GENETIC ANALYSIS OF A POPULATION OF TRIBOLIUM. II. METABOLIC PATTERN OF CORN OIL SENSITIVE ANOMALY.**
R F Costantino J C Rogler A E Bell
*Heredity 23(4):477-483*
Nov 1968 443.8 H42
Corn oil, Insect genetics, Insect metabolism, Insect mutation, Tribolium castaneum.

**3328-69**
**INTERPOPULATION KARYOTYPE DIFFERENCES IN AUSTRALIAN IRIDOMYRMEX OF THE DETECTUS GROUP (HYMENOPTERA: FORMICIDAE: DOLICHODERINAE).**
R H Crozier
*Entomol Soc Queensland J 7(1):25-27*
Jun 1968 420 EN823
Chromosomes, Insect genetics, Insect populations, Insect taxonomy, Iridomyrmex.

**3329-69**
**SEX AND SELECTION FOR A QUANTITATIVE CHARACTER IN DROSOPHILA. II. THE SEX DIMORPHISM.**
R Frankham
*Australian J Biol Sci 21(6):1225-1237 REF*
Dec 1968 442.8 AU72
Abdomen, Chromosomes, Drosophila melanogaster, Insect breeding, Insect genetics, Insect populations, Polymorphism, Quantitative analysis, Sex.

**3330-69**
**SEX AND SELECTION FOR A QUANTITATIVE CHARACTER IN DROSOPHILA. I. SINGLE-SEX SELECTION.**
R Frankham
*Australian J Biol Sci 21(6):1215-1223 REF*
Dec 1968 442.8 AU72
Abdomen, Drosophila melanogaster, Insect breeding, Insect genetics, Quantitative analysis, Sex.

**3331-69**
**SOME BIOCHEMICAL CHARACTERISTICS OF THE MICROSOMAL CYCLODIENE EPOXIDASE SYSTEM AND ITS INHERITANCE IN THE HOUSE FLY.**
M A Q Khan
*J Econ Entomol 62(2):388-392 REF*
15 Apr 1969 421 J822
Chromatography, Cyclodiene, Enzymes, Epoxides, Insect biochemistry, Insect genetics, Insect physiology, Insecticide resistant insects, Microsomes, Musca domestica, Oxidation.

The author lists the epoxidation of cyclodiene-derivatives of chlorinated hydrocarbon insecticides with the effect of enzyme concentration by house fly microsomes.

**3332-69**
**MELANISM IN CONNECTICUT CHARADRA DERIDENS (GUENEE) (LEPIDOPTERA: NOCTUIDAE).**
A B Klots
*N Y Entomol Soc J 76(1):58-59*
29 Mar 1968 420 N48J
Charadra deridens, Insect genetics, Melanosis, Noctuidae.

**3333-69**
**GENETICS OF CYCLODIENE-INSECTICIDE RESISTANCE IN THE SEED-CORN MAGGOT.**
D G R McLeod C R Harris G R Driscoll
*J Econ Entomol 62(2):427-432 REF*
15 Apr 1969 421 J822
Aldrin, Cyclodiene, Diazinon, DDT, Dosage, Hylemya platura, Insect genetics, Insecticide resistant insects.

**3334-69**
**THE INFLUENCE OF ADVANCING AGE ON CHIASMA FREQUENCY IN PHYMATEUS CINCTUS FAB. (ACRIDIDAE).**
O Oyidi
*Heredity 23(4):607-611 REF*
Nov 1968 443.8 H42
Acrididae, Aging, Chromosomes, Insect genetics, Statistical analysis.

**3335-69**
**EFFECTIVENESS OF REGULAR CYCLES OF INTERMITTENT ARTIFICAL SELECTION FOR A QUANTITATIVE CHARACTER IN DROSOPHILA MELANOGASTER.**
K A Rathie J S F Barker
*Australian J Biol Sci 21(6):1187-1213 REF*
Dec 1968 442.8 AU72
Abdomen, Drosophila melanogaster, Genes, Insect anatomy, Insect breeding, Insect genetics, Quantitative analysis.

**3336-69**
**PHENETICS OF NATURAL POPULATIONS. IV. THE POPULATION ASYMMETRY PARAMETER IN THE BUTTERFLY COENONYMPHA TULLIA.**
M Soule B Baker
*Heredity 23(4):611-614 REF*
Nov 1968 443.8 H42
Environmental effects, Insect genetics, Insect population statistics, Lepidoptera.

**3337-69**
**GENETIC PLASTICITY OF STORED-PRODUCT INSECTS IN RELATION TO INSECTICIDES: COMPARATIVE SUSCEPTIBILITY OF CONFUSED AND RED FLOUR BEETLES FROM VARIOUS AREAS OF CALIFORNIA TO MALATHION.**
R G Strong G J Partida T L Archer
*J Econ Entomol 62(2):470-474 MAP REF*
15 Apr 1969 421 J822
Insect cultures, Insect genetics, Insecticide resistant insects, Malathion, Plasticity, Spraying, Tribolium castaneum, Tribolium confusum.

## MEDICAL ENTOMOLOGY

**3338-69**
**ARTHROPODS. IN: DISEASES OF MAN ACQUIRED FROM HIS PETS.**
B Bisseru
*416-422 PHILADELPHIA, LIPPINCOTT*
1967 RC639.B5
Arthropoda, Epidemiology, Human diseases, Infectious diseases, Insect behavior, Insect diseases, Insect vectors, Medical entomology, Pets.

**3339-69**
**CARP FOR CHIRONOMID MIDGE CONTROL.**
J H Kimball
*Mosquito News 28(2):147-148*
Jun 1968 421 M85
Biological control (insects), Chironomidae, Fish, Larvae.

Carp were recommended for the control of chironomid midges which breed in water impoundments near commercial and residential areas.

**3340-69**
**THE CONTROL OF IXODID TICKS--VECTORS OF HUMAN DISEASES BY MEANS OF ALTERATION OF THEIR ENVIRONMENT. (RU )**
E I Korenberg
*Zool Zhur 48(3):356-363 REF*
Mar 1969 410 R92
Cultural control (insects), Environmental control, Host relationships, Insect control, Insect vectors, Ixodidae, Wildlife. English abstract

**3341-69**
**PHOTOALDRIN AND ITS TOXICITY TO MOSQUITO LARVAE.**
D J Sutherland J D Rosen
*Mosquito News 28(2):155-159 REF*
Jun 1968 421 M85
Aedes aegypti, Aldrin, Anopheles stephensi, Biological assay, Chlorinated hydrocarbons, Culex pipiens, Dieldrin, Insecticides, Metabolism, Photochemistry, Toxicology.

The toxicity of photoaldrin was assayed on larvae of Aedes aegypti, Culex pipiens and Anopheles stephensi. Since experiments indicated that photoaldrin was more toxic than aldrin to mosquito larvae, it may prove to be a more useful larvicide. however nothing is currently known of its toxicity to other organisms.

## CROP PROTECTION

**3342-69**
**ALTERNATING SPRAYS CUTS RESISTANCE.**
Anonymous
*Amer Fruit Grower 89(2):13-15*
Feb 1969 80 G85W
Chemical control (pests), Fruit culture, Nozzles, Pesticide application, Resistance, Spraying equipment.

Tables of spraying schedules including date of application, stage of growth, material used and how applied, and amount of material used on each type of fruit are included.

**3343-69**
**CONTROL OF THORN TREES CAN DOUBLE VELD CAPACITY.**
T J Bembridge
*Mod Farming Cent Afr 37-40*
Dec 1967 24 M72
Acacia, Brush control, Methodology, Mineral oil, Pastures, T, 2,4,5-, Tree diseases.

**3344-69**
**SEED CROPS; ANNUAL SUMMARY, 1968: ACREAGE, YIELD, PRODUCTION, SEASONAL AVERAGE PRICE, VALUE OF PRODUCTION, BY STATES. 1967-1968.**
*23P*
1968 1.9 EC712C
Crop yields, Crops, Economics, Harvesting, Import control, Productivity, Seeds, Tables (data).

**3345-69**
**ON THE PROBLEM OF INCREASE OF INJURY IN PRACTICAL PLANT PROTECTION. (GE )**
R Diercks A Obst
*Gesunde Pflanzen 20(1):8-15 REF*
Jan 1968 464.8 G33
Insect population, Plant injuries, Plant pest control, Plant protection, Research.

3346-69

3346-69
**GENETIC COMPLEMENTATION IN USTILAGO HORDEI.**
A Dinoor C Person
*Can J Bot 47(1):9-14 REF*
Jan 1969 470 C16C
Arginine, Complement, Culture media, Fungi, Mutation, Plant breeding, Plant genetics, Plant physiology, Ustilago hordei.

3347-69
**THE IMPORTANT CROP DISEASES AND PESTS IN THE FEDERAL REPUBLIC OF GERMANY IN THE GROWING SEASONS OF 1965 AND 1966 (NOVEMBER, 1964 THROUGH OCTOBER, 1966). (GE )**
A Harle
*Berlin Biol Bundesanst Land-forstwirtsch Mitt (130):5-79 REF*
Oct 1968 410.9 G31M
Crops, Insect pests, Nematodes, Parasites, Plant diseases, Weeds. English abstract

3348-69
**A COMPILATION OF DESCRIPTIONS OF NEW PENICILLIUM SPECIES.**
M M Kulik
*U S D A Agr Handb (351):80P*
Sep 1968 1 AG84AH
Fungi, Identification, Penicillium, Plant taxonomy, Reference materials.

This compilation is to present descriptions, plus an analytical key, so those interested in identifying Penicillium not found in Manual of Penicillia will not have to search for literature for descriptions of them.

3349-69
**COOPERATIVE DESCRIPTION OF TYPE CULTURES OF STREPOMYCES. II. SPECIES DESCRIPTIONS FROM FIRST STUDY.**
E B Shirling D Gottleib
*Int J Syst Bacteriol 18(2):69-189 REF*
Apr 1968 448.3 IN8
Bacteriology, Microbiology, Nomenclature, Streptomyces, Taxonomy.

3350-69
**MUSHROOMS; HOW TO IDENTIFY AND GROW THEM. (IT )**
U Tosco
*G. B. Paravia And Company, Turin, Italy 179P*
1965 SB353.T6
Mushrooms, Mycology, Plant physiology, Plant taxonomy, Poisonous fungi.

3351-69
**THE UTILIZATION OF SOME NITROGEN COMPOUNDS BY SOME CELLULOSOLYTIC FUNGI. (IT )**
O Verona G Picci
*Pisa Univ Ist Patol Veg Microbiol Agr Tec (mem) (511,JAN-FEB):3-8*
1968 464.9 P67
Ammonium, Calcium cyanamide, Fungi, Nitrogen compounds, Plant biochemistry, Plant nutrition. Reprint from: L'Agricoltura Italiana, Jan-Feb 1968. english summary.

3352-69
**IONS AND THE GROWER.**
P Withington
*Aust Tob Growers Bull (14):9-10*
1968 69.8 AU72
Growth factors, Ion exchange, Ionization, Ions, Plant biochemistry, Plant nutrition, Plant physiology, Planting, Tobacco.

## DISEASES

3353-69
**FUNGUS LEAF SPOT IN SOYBEANS.**
Anonymous
*Rice J 72(1):19*
Jan 1969 59.8 R36
Crop losses, Crop rotation, Crop varieties, Fungus diseases (plants), Leaf spot, Plant disease control, Plant disease resistance, Planting, Seeds, Soybeans, Tillage.

3354-69
**THE DYNAMICS OF ACTINOMYCES-ANTAGONISTS DEVELOPMENT OF VERTICILLIUM DAHLIAE OF COTTON. (RUS )**
S A Askarova A D Koveshnikov
*Uz Biol Zhur 11(3):21-24*
1967 442.8 UZI
Cotton, Fungus diseases (plants), Plant disease resistance, Time, Verticillium dahliae, Wilt. English summary.

3355-69
**INACTIVATION OF LETTUCE NECROTIC YELLOWS VIRUS BY CHELATING AGENTS.**
B A Atchison R I B Francki N C Crowley
*Virology 37(3):396-403 REF*
Mar 1969 448.8 V81
Ammonium thiocyanate, Chelation, Chemical control (plant diseases), Copper, Iron, Lettuce, Lipases, Necrosis, Sodium diethyldithiocarbamate, Temperature, Virus diseases (plants), Yellows.

3356-69
**CITRUS CANCROID. (SP )**
E Atlas De Gotuzzo L A Rossi
*Rev Invest Agr Ser 5, Patol Veg 4(5):69-81 REF*
1967 464.8 R322
Argentina, Bacterial diseases (plants), Canker, Citrus, Plant morphology, Plant physiology, Xanthomonas. English abstract

3357-69
**A NOTE ON THE NATURAL INCIDENCE OF SESAMUM PHYLLODY VIRUS IN BRASSICA SPP. AT LUDHIANA.**
O S Bindra D R C Bakhetia
*Prog Farming 4(3):406-408*
Sep 1967 S19.P8
Brassica, Crop yields, Fertilization (plants), Nitrogen, Phosphorus, Phyllody, Research, Virus diseases (plants).

3358-69
**REPORT ON SIX YEARS OF TOBACCO BLUE MOLD DISEASE IN THE FEDERAL REPUBLIC OF GERMANY (1959-1964). (GE )**
*Berlin Biol Bundesanst Land-forstwirtsch Mitt (120):1-117*
Dec 1966 410.9 G31M
Bibliography, Crop losses, Downy mildew, Fungus diseases (plants), Plant breeding, Plant disease control, Plant disease resistance, Plant disease transmission, Tobacco. English abstract

3359-69
**ROLE OF ROOT KNOT NEMATODE IN BREAKING RESISTANCE TO FUSARIUM WILT IN TOMATO.**
J R Bloom P Bowman
*Plant Protect Abs 4:187*
Sep 1968 241.75 P69
Fungus diseases (plants), Fusarium, Meloidogyne incognita, Nematodes, Plant disease resistance, Tomatoes, Wilt (tomatoes). First International Congress of Plant Pathology, London 14-26 July, 1968.

3360-69
**LIGHT AND ELECTRON MICROSCOPY OF CYTOPLASMIC AND UNUSUAL NUCLEAR INCLUSION BODIES EVOKED BY A VIRUS FROM NECROTIC PEAS.**
L Bos M Rubio-Huertos
*Virology 37(3):377-385 REF*
Mar 1969 448.8 V81
Cell nucleus, Cytoplasm, Electron microscopy, Inclusion bodies, Light, Necrosis, Peas, Virology, Virus diseases (plants).

3361-69
**TOBACCO (BROWN SPOT) ((ALTERNARIA TENUIS) VAR.). (SP )**
W J Castello
*Rev Invest Agr Ser 5, Patol Veg 4(3):41-54*
1967 464.8 R322
Alternaria tenuis, Brown spot, Fungus diseases (plants), Tobacco. English abstract

3362-69
**INHIBITORY ABILITY OF SAP FROM DIFFERENT TOBACCO VARIETIES ON POTATO VIRUS Y.**
J Chod J Polak J Lermak K Skula
*Biol Plant 11(1):79-85 REF*
1969 450 B52
Plant disease resistance, Plant extracts, Potatoes, Sap, Tobacco, Virus diseases (plants), Virus Y.

3363-69
**ANTHRACNOSE DISEASE OF JOWAR (SORGHUM VULGARE PERS.) CAUSED BY COLLETOTRICHUM GRAMINCOLUM (CES.) WILS. IN THE PUNJAB.**
J S Chohan
*Prog Farming 4(3):394-400 REF*
Sep 1967 S19.P8
Anthracnose (sorghum), Colletotrichum graminicolum, Crop losses, Diagnosis, Durra, Microorganisms, Plant disease control, Sorghum.

3364-69
**THE ACTUAL SITUATION OF INQUIRY INTO THE RESISTANCE OF VARIETIES OF WATERMELON WITHERING WITH FUSARIUM. (POR )**
B P B Cruz A P da Silveira N T de Mendonca
*Biologico 34(11):246-250*
Nov 1968 442.8 B529
Fungus diseases (plants), Fusarium, Plant disease resistance, Watermelons.

3365-69
**STORED FIFTY YEARS VIRUS SILL ACTIVE.**
*Aust Tob Growers Bull (12):20*
1968 69.8 AU72
Longevity, Mosaic (tobacco), Storage, Time, Tobacco, Virus diseases (plants).

3366-69
**CONTROL OF TOBACCO MOSAIC VIRUS.**
A D Doyle
*Aust Tob Growers Bull (14):18-20,22*
1968 69.8 AU72
Crop rotation, Epidemiology, Hygiene, Mosaic, Plant diseases, Sanitation, Symptomatology, Tobacco, Virus diseases (plants), Weather.

3367-69
**EFFECTS OF SOIL FUMIGATION ON DISEASE INCIDENCE, GROWTH, AND YIELD OF SPRING WHEAT.**
D L Ebbels
*Ann Appl Biol 63(1):81-93 REF*
Feb 1969 442.8 AN72
Chemical control (pests), Crop yields, Dichloropropane dichloropropene mixture, Dimethyltetrahydro-1,3,5-2H-thiadiazine-2-thione, 3,5-, Epidemiology, Plant diseases, Plant nematodes, Plant physiology, Soil fumigation, Wheat.

3368-69
**BACTERIAL BLIGHT OF COTTON IN THE ORD RIVER.**
J P Evenson
*Australian J Exp Agr Anim Husb 8(34):615-619 REF*
Oct 1968 23 AU792
Bacterial blight, Bacterial diseases (plants), Cotton, Crop varieties, Plant disease resistance, Xanthomonas malvacearum.

3369-69
**RED BAND DISEASE ON PINES ((DOTHISTROMA PINI) HULBARY VAR. (LINEARIS) THYR AND SHAN). (SP )**
R Fresa
*Rev Invest Agr Ser 5, Patol Veg 5(1):1-7 REF*
1968 464.8 R322
Defoliation, Dothistroma pini, Fungus diseases (plants), Pinus radiata, Red band. English abstract

3370-69
**SEVERE ATTACKS OF PERONOSPORA ON LARGE-SCALE ROSE CULTURES. (IT**

P Gambogi
*Pisa Univ Ist Patol Veg Microbiol Agr Tec (mem) (496,JAN-FEB):20-22*
1967 464.9 P67
Fungus diseases (plants), Peronospora, Rosa. Reprint from: L'Agricoltura Italiana, Jan-Feb 1967. english summary.

**3371-69**
**MICROORGANISMS IN THE RHIZOSPHERE OF WHEAT. (GE )**
W Gams
*Berlin Biol Bundesanst Land-forstwirtsch Mitt (123):5-77 REF*
Jun 1967 410.9 G31M
Amino acids, Biological control (plant diseases), Plant biochemistry, Rhizosphere, Root disease, Soil bacteria, Soil fungi, Wheat. English abstract

**3372-69**
**PESTS AND DISEASES OF CULTIVATED PLANTS. (SP )**
F D Garcia-Tejero
*Editorial Dossat S. A., Madrid, Spain 944P MAP*
1965 SB931.D6
Bacterial diseases (plants), Biological control (insects), Chemical control (insects), Fumigation, Fungus diseases (plants), Insect pests, Pesticides, Plant nematodes, Plant pest control, Plant physiological diseases, Soil-borne plant diseases, Spraying equipment, Virus diseases (plants).

**3373-69**
**EFFECT OF MICRONUTRIENTS ON YIELD AND THEIR CONTENTS IN WHEAT.**
J S Grewal N S Randhawa D R Bhumbla
*Prog Farming 4(3):315-322 REF*
Sep 1967 S19.P8
Chemicals, Crop yields, Micronutrients, Soil analysis, Soils, Spraying, Wheat.

**3374-69**
**MYCORRHIZAE: INDISPENSABLE INVASIONS BY FUNGI.**
E Hacskaylo
*Agr Sci Rev 5(1, 1ST QUARTER):13-20 REF*
1967 431.3 AG893
Fungi, Micronutrients, Mycorrhizae, Plant disease resistance, Plant physiology, Roots, Symbiosis.

Research leading to the acknowledgement of a symbiotic relationship between certain fungi and plants is reviewed, with particular emphasis on the physiological need of the plant for the fungus.

**3375-69**
**THE EFFECT OF CARBAMIDE AND THIOCARBAMIDE ON THE RESISTANCE OF APPLE TO APPLE SCAB.**
M Hanusova
*Biol Plant 11(1):1-7 REF*
1969 450 B52
Apples, Enzymes, Fungus diseases (plants), Oxidases, Phenolases, Plant biochemistry, Plant disease resistance, Plant physiology, Scab, Thiourea, Urea, Venturia inaequalis.

**3376-69**
**MYCOSTASIS IN SEMI-ARID SOIL OF WEST PAKISTAN.**
M H Hashmi M A B Malik
*Pakistan J Sci Indus Res 10(4):254-258 REF*
Oct 1967 475 P174
Fungus diseases (plants), Salts, Soil biology, Soil fungi, Toxins.

**3377-69**
**PROTEINACEOUS AND VIRUS-LIKE INCLUSIONS IN CELLS INFECTED WITH BEET MOSAIC VIRUS.**
L L Hoefert
*Virology 37(3):498-501*
Mar 1969 448.8 V81
Beets, Cells, Inclusion bodies, Leaves, Mosaic, Proteins, Sugar beets, Symptomatology, Virology, Virus diseases (plants).

**3378-69**
**PLAIN 1 AND PLAINS 2; NEW BROOMCORN VARIETIES RESISTANT TO ANTHRACNOSE STALK ROT.**
D C H Hsi N R Malm
*N Mex Agr Exp Sta Bull (525):8P REF*
Jun 1968 100 N465 (1)
Anthracnose, Colletotrichum graminicolum, Corn, Crop varieties, Fungus diseases (plants), Plant disease resistance, Root rot, Stalk rot (corn), Tables (data).

**3379-69**
**STUDIES ON ALFALFA MOSAIC VIRUS. I. THE PROTEIN AND NUCLEIC ACID. II. THE STRUCTURE OF THE VIRUS COMPONENTS.**
R Hull M W Rees M N Short G J Hills R Markham
*Virology 37(3):404-428 REF*
Mar 1969 448.8 V81
Alfalfa, Amino acids, Molecular weight, Mosaic, Nucleic acids, Peptides, Proteins, Tryptophan, Virology, Virus diseases (plants).

**3380-69**
**THYMIDINE-3H UPTAKE BY X-BODIES ASSOCIATED WITH CAULIFLOWER MOSAIC VIRUS INFECTION.**
T Kamei M Rubio-Huertos C Matsui
*Virology 37(3):506-508*
Mar 1969 448.8 V81
Absorption, Autoradiography, Brassica perviridis, Cauliflower, Electron microscopy, Hydrogen, Isotopes, Mosaic, Thymidine, Virology, Virus diseases (plants).

**3381-69**
**ELECTRON MICROSCOPY OF POKEWEED LEAF CELLS INFECTED WITH POKEWEED MOSAIC VIRUS.**
K S Kim J P Fulton
*Virology 37(3):297-308 REF*
Mar 1969 448.8 V81
Cells, Cytoplasm, Electron microscopy, Inclusion bodies, Leaves, Mosaic, Phytolacca americana, Virology, Virus diseases (plants).

**3382-69**
**SOME CULTURAL STUDIES ON RHIZOCTONIA SOLANI THE CAUSAL ORGANISM OF SHEATH BLIGHT OF PADDY.**
C K Kohli
*Prog Farming 4(3):401-405*
Sep 1967 S19.P8
Culture media, Hydrogen-ion concentration, Rhizoctonia solani, Rice, Sheath blight, Soil structure, Temperature, Trichoderma.

**3383-69**
**PYTHIUM ROOT ROT OF WHEAT IN QUEENSLAND SOIL.**
R J Ledingham T C Vanterpool
*Queensland J Agr Anim Sci 24(2):241-243*
Jun 1967 23 Q37
Fungus diseases (plants), Pathogenicity, Pythium, Root rot, Wheat.

**3384-69**
**MARKET QUALITY OF ASPARAGUS; EFFECTS OF MATURITY AT HARVEST AND OF HIGH CARBON DIOXIDE ATMOSPHERES DURING SIMULATED TRANSIT.**
W J Lipton
*USDA Marketing Res Rep (817):3-7*
Aug 1968 1 AG84MR
Asparagus, Atmosphere, Bacterial diseases (plants), Carbon dioxide, Harvesting, Histochemistry, Plant disease control, Plant injuries, Soft rot.

**3385-69**
**METABOLITES OF FUSARIUM OXYSPORUM F. CUMINI IN RELATION TO CUMIN WILT. II. INFLUENCE OF GROWTH PERIOD, PH AND DILUTION.**
B L Mathur R L Mathur
*Indian Phytopathol 20(1):42-44*
Mar 1967 464.8 IN2
Cuminum cyminum, Fusarium oxysporum, Metabolites.

**3386-69**
**POTATO BLIGHT CONTROL.**
R K McKee
*Agr North Ireland 42(12):394-397*
Apr 1968 256.13 AG82M
Air-borne plant diseases, Chemical control (plant diseases), Crop losses, Epidemiology, Fungus diseases (plants), Late blight, Potatoes, Spraying.

**3387-69**
**MESILLA ALFALFA.**
B A Melton
*N Mex Agr Exp Sta Bull (530):8P*
Jun 1968 100 N465 (1)
Alfalfa, Aphididae, Crop varieties, Crop yields, Insect pests, Plant disease resistance, Plant pest resistance.

**3388-69**
**CARE OF TOBACCO SEEDLINGS.**
G Milligan
*Rhodesian Tobacco J 20(10):27,29*
Oct 1968 69.8 R34
Insect pests, Leaf miners, Plant disease control, Plant diseases, Plant physiology, Planting, Seedlings, Spraying, Symptomatology, Tobacco.

**3389-69**
**WHITE MOULD; METHODS OF CONTROL EXPLAINED.**
G A Milligan
*Mod Farming Cent Afr 11-13*
Dec 1967 24 M72
Chemical control (plant diseases), Dinocap, Dusting, Fungus diseases (plants), Molds, Spraying, Tobacco.

**3390-69**
**VIRUS DISEASES OF CHRYSANTHEMUMS.**
*Great Brit Min Agr Fish Food Adv Leafl (555):1-5*
Jan 1968 10 G79LA
Chrysanthemum, Cultural control (plant diseases), Insect vectors, Insecticides, Plant disease transmission, Virus diseases (plants).

Causative agents, symptoms and transmission of several virus diseases of chrysanthemums are discussed. The application of insecticides to control insect vectors and heat treatments of meristem tip cultures are recommended means of control.

**3391-69**
**BOTRYTIS DISEASE OF LETTUCE.**
*Great Brit Min Agr Fish Food Adv Leafl (559):1-4*
Mar 1968 10 G79LA
Botrytis cinerea, Chemical control (plant diseases), Cultural control (plant diseases), Dichloro-4-nitroaniline, 2,6-, Fungus diseases (plants), Humidity, Lettuce, Plant disease transmission, Temperature, Thiram.

A description of the causal agent (Botrytes cinerea) of grey mold, damping off and stem rot in lettuce including disease symptoms, and modes of transmission is given. Cultural control methods are described and use of thiram, dichloran, or other fungicides is recommended.

**3392-69**
**POTATO GANGRENE.**
*Great Brit Min Agr Fish Food Adv Leafl (545):1-4*
Apr 1968 10 G79LA
Cultural control (plant diseases), Fungus diseases (plants), Gangrene, Heat treatment, Humidity, Mercury compounds, Phoma exigua, Potatoes.

The causative agent (Phoma exigua), symptoms and transmission of the fungus disease, potato gangrene, are discussed. Chemical control with organomercury solutions and cultural control by heat treatment and high humidity are recommended.

3393-69
**EFFECT OF PRE-HARVEST SPRAY OF SODIUM ORTHOPHENYL PHENATE AND CAPTAN ON THE CONTROL OF DECAY IN ANAB-E-SHAHI GRAPES (VITIS VINIFERA LINN.).**
P Narasimham M M Rao N Nagaraja B Anandaswamy
*Journeyman Boker 5(2):63-64*
Jul 1968 389.8 J823
Captan, Chemical control (plant diseases), Fungicides, Fungus diseases (plants), Grapes, Harvesting, Sodium orthophenylphenate, Spraying, Storage diseases.

3394-69
**LEMON SCAB (SPHACELOMA FAWCETTII SCABIOSA).**
*Agr Gaz New S Wales 80(1):BACK COVER*
Jan 1969 23 N472
Bordeaux mixture, Chemical control (plant diseases), Fungus diseases (plants), Lemons, Oils, Sphaceloma, Zineb.

Sphaceloma fawcetti scabiosa, the fungus which causes lemon scab, may be controlled by spraying with Bordeaux mixture and white oil when the trees are in blossom and later with zineb.

3395-69
**TOMATO YELLOW TOP.**
*Agr Gaz New S Wales 79(9):BACK COVER*
Sep 1968 23 N472
Aphididae, Chemical control (insects), Chlorinated hydrocarbons, Crop losses, Dimethoate, DDT, Insect vectors, Insecticides, Methyl demeton, Organophosphorus compounds, Tomatoes, Virus diseases (plants), Yellow top.

3396-69
**POWDERY MILDEW OF APPLE (PODOSPHAERA LEUCOTRICHA).**
*Agr Gaz New S Wales 79(7):BACK COVER*
Jul 1968 23 N472
Apples, Binapacryl, Chemical control (plant diseases), Cultural control (plant diseases), Dinocap, Fungus diseases (plants), Lime-sulfur, Powdery mildew, Pruning, Symptomatology.

3397-69
**GROWTH OF PSEUDOMONAS PHASEOLICOLA IN SUSCEPTIBLE AND IN RESISTANT BEAN PLANTS.**
M E H Omer R K S Wood
*Ann Appl Biol 63(1):103-116 REF*
Feb 1969 442.8 AN72
Bacterial diseases (plants), Beans, Crop varieties, Growth factors, Plant disease resistance, Pseudomonas phaseolicola, Symptomatology.

3398-69
**CONTROLLING STEM-END ROT OF RIPE MANGO.**
V N Pathak D N Srivastava
*Indian Farming 18(5):43,45*
Aug 1968 22 IN283
Chemical control (plant diseases), Copper carbonate, Diplodia natalensis, Fruit rot, Fungicides, Fungus diseases (plants), Mangoes, Plant injuries.

Recommendations are presented for orchard owners concerning the control of stem end rot in ripe mangoes by implementing specific handling techniques and by treatment of the fruit with a copper carbonate fungicide.

3399-69
**STRUCTURES AND PESTICIDAL ACTIVITIES OF DERIVATIVES OF DINITROPHENOLS. XI. EFFECTS OF SUBSTITUTION OF DINITROPHENOLS WITH C3 TO C13 ALPHA-BRANCHED ALKYL GROUPS AND OF ESTERIFICATION ON THE ERADICATION OF CUCUMBER MILDEW.**
M Pianka P J J Sweet
*J Sci Food Agr 19(11):676-681*
Nov 1968 382 SO12
Carbon, Chemical control (plant diseases), Cucumbers, Dinitrophenols, Erysiphe cichoracearum, Esters, Fungus diseases (plants), Isotopes, Mildew, Pesticides.

3400-69
**STRUCTURES AND PESTICIDAL ACTIVITIES OF DERIVATIVES OF DINITROPHENOLS. XII. IN VITRO ACTIVITY OF C3 TO C13 ALPHABRANCHED ALKYLDINITROPHENOLS AND THEIR ESTERS AND ETHERS AGAINST THE SPORES OF VENTURIA INAEQUALIS AND OTHER FUNGI.**
M Pianka
*J Sci Food Agr 19(11):681-684 REF*
Nov 1968 382 SO12
Botrytis cinerea, Carbon, Cercospora melonis, Culture media, Dinitrophenols, Esters, Ethers, Fungus diseases (plants), Fusarium, Isotopes, Pesticides, Spores, Venturia inaequalis.

3401-69
**STRUCTURES AND PESTICIDAL ACTIVITIES OF DERIVITIVES OF DINITROPHENOLS. X. EFFECTS OF SUBSTITUTION OF DINITROPHENOLS WITH C3 TO C13 ALPHA-BRANCHED ALKYL GROUPS AND OF ESTERIFICATION ON THE ERADICATION OF BARLEY MILDEW.**
M Pianka P J J Sweet
*J Sci Food Agr 19(11):672-675*
Nov 1968 382 SO12
Barley, Carbon, Chemical control (plant diseases), Dinitrophenols, Erysiphe graminis, Esters, Fungus diseases (plants), Isotopes, Mildew, Pesticides, Podosphaera leucotricha.

3402-69
**STRUCTURES AND PESTICIDAL ACTIVITIES OF DERIVATIVES OF DINITROPHENOLS. IX. EFFECTS OF SUBSTITUTION OF DINITROPHENOLS WITH C4 TO C13 ALPHA-BRANCHED ALKYL GROUPS AND OF ESTERIFICATION ON THE ERADICATION OF APPLE MILDEW.**
M Pianka P J J Sweet
*J Sci Food Agr 19(11):667-672 REF*
Nov 1968 382 SO12
Apples, Carbon, Chemical control (plant diseases), Dinitrophenols, Esters, Fungus diseases (plants), Isotopes, Mildew, Pesticides, Podosphaera leucotricha.

3403-69
**HENDERSONIA DRACAENAE SP. NOV.**
K M Ponnappa
*Cur Sci 38(3):72*
05 Feb 1969 475 SCI23
Dracaena, Fungus diseases (plants), Hendersonia dracaenae, Plant taxonomy, Soil fungi.

3404-69
**TOBACCO BLUE MOULD (PERONOSPORA TABACINA ADAM) IN NORTH QUEENSLAND. 3. FUNGICIDE SCREENING AND EFFICACY EXPERIMENTS.**
W Pont R G O'Brien
*Queensland J Agr Anim Sci 24(2):187-200*
Jun 1967 23 Q37
Chemical control (plant diseases), Fungus diseases (plants), Maneb, Methodology, Peronospora tabacina, Zineb.

3405-69
**SEROLOGICAL STUDIES OF BRATISLAVA MOSAIC VIRUS OF GRAPE VINE.**
J Pozdena G Vanek
*Biol Plant 11(1):41-48 REF*
1969 450 B52
Antibodies, Czechoslovakia, Grapes, Mosaic, Serological tests, Virus diseases (plants).

3406-69
**ADDITIONAL SOURCES OF RESISTANCE TO THE BARLEY YELLOW DWARF VIRUS IN BARLEY.**
C O Qualset C W Schaller
*Crop Sci 9(1,JAN/FEB):104-105*
1969 64.8 C883
Barley, Plant disease resistance, Testing, Virus diseases (plants), Yellow dwarf.

3407-69
**STUDY OF A VIRUS OF ALFALFA AND THE ULTRASTRUCTURE OF THE INFECTED LEAVES. (SP )**
M Rubio-Huertos R Moreno
*Microbiol Espan 21(1-2,JAN-JUN):13-22*
1968 448.3 M583
Alfalfa, Cytology, Electron microscopy, Leaves, Virus diseases (plants). English abstract

3408-69
**THE ULTRASTRUCTURE OF CELLS OF DIANTHUS CARYOPHYLLUS INFECTED WITH A VIRUS. (SP )**
M Rubio-Huertos S Castro R Moreno D Lopez-Abella
*Microbiol Espan 21(1-2,JAN-JUN):1-11*
1968 448.3 M583
Cytology, Dianthus caryophyllus, Electron microscopy, Plant morphology, Virus diseases (plants). English abstract

3409-69
**PHYCOVIRUS SM-1: A VIRUS INFECTING UNICELLULAR BLUE-GREEN ALGAE.**
R S Safferman I R Schneider R L Steere M E Morris T O Diener
*Virology 37(3):386-395 REF*
Mar 1969 448.8 V81
Algae, Deoxyribonucleic acid, Nucleic acids, Nucleoproteins, Purification, Virology, Virus diseases (plants).

3410-69
**MINOR PREDISPOSITION TO LODGING AND STALK ROT OF MAIZE CULTIVATED WITH MINIMUM TILLAGE (WITHOUT HILLING). (SP )**
M A R de Sarasola
*Rev Invest Agr Ser 5, Patol Veg 5(2):11-17 REF*
1968 464.8 R322
Corn, Fungus diseases (plants), Fusarium, Helminthosporium, Lodging, Macrophomina phaseoli, Stalk rot, Tillage. English abstract

3411-69
**INTERACTION OF TMV-PROTEINS DURING ELECTROPHORETIC SEPARATION IN POLYACRYLAMIDE GELS.**
S Sarkar L Schilde-Rentschler
*Z Vererbungslehre 103(3):244-247 REF*
31 Dec 1968 442.8 Z34
Electrophoresis, Plant biochemistry, Proteins, Tobacco mosaic virus, Virus diseases (plants).

3412-69
**TEMPERATURE AND RELATIVE HUMIDITY REGIMES IN THE PINE STUMP HABITAT OF FOMES ANNOSUS.**
R A Schmidt F A Wood
*Can J Bot 47(1):141-154 REF*
Jan 1969 470 C16C
Climate, Fomes annosus, Fungus diseases (plants), Habitats, Measurement, Pinus resinosa, Temperature.

3413-69
**ETIOLOGY OF MUMMY DISEASE OF CULTIVATED MUSHROOMS. (ABSTRACT).**
E M Sigel I C Schisler
*Phytopathology 57(8):829*
Aug 1967 464.8 P56
Bacterial diseases (plants), Mummy disease (mushrooms), Mushrooms, Pseudomonas.

3414-69
**CANONICAL CORRELATIONS OF SEED VIABILITY, SEED-BORNE FUNGI, AND ENVIRONMENT IN BULK GRAIN ECOSYSTEMS.**
R N Sinha H A H Wallace F S Chebib
*Can J Bot 47(1):27-34 REF*
Jan 1969 470 C16C
Fungus diseases (plants), Grain, Humidity, Mathematical analysis, Plant ecology, Seed germination, Seed-borne plant diseases, Seedlings, Storage diseases, Temperature. Many species of fungi were tested.

3415-69
**PROGRESS REPORT ON SCREENING COFFEE SELECTIONS AND COLLECTIONS WITH RACES OF LEAF RUST FUNGUS AT CENTRAL COFFEE RESEARCH INSTITUTE.**
M S Sreenivasan
*Indian Coffee Monthly Bull 32(10):299-304*
Oct 1968 68.29 IN23M
Coffee, Fungus diseases (plants), Hemileia vastatrix, Leaf rust, Plant pest resistance. The author lists the 11 physiologic races of the leaf rust that existed on coffee plants.

3416-69
**TURF DISEASES.**
*Tasmanian J Agr 39(1):47-49*
Feb 1968 23 T182T
Algae, Catalogs, Chemical control (plant diseases), Copper fungicides, Drainage, Fungus diseases (plants), Grass sickness, Mercury compounds, Symptomatology, Turf.

The symptoms, agents, and control measures for the grass diseases, fairy rings, brown patch, snow mold, nostoc, slime mold, pink patch, and dollar spot are discussed. Chemical control with copper fungicides and mercury compounds along with good drainage are suggested.

3417-69
**ARE YOU DISCOURAGING DISEASE IN YOUR CROPS .**
*Tasmanian J Agr 39(4):321*
Nov 1968 23 T182T
Crop rotation, Cultural control (plant diseases), Methodology, Plant diseases, Vegetables.

Proper cultivation techniques to control plant diseases are discussed for peas, french beans, carrots, brassica crops, onions, cereals, and potatoes.

3418-69
**BRASSICA DISEASES.**
*Tasmanian J Agr 39(2):95-98*
May 1968 23 T182T
Brassica, Catalogs, Plant disease control, Plant diseases, Symptomatology.

Diseases that affect Brassica s. sp. are named, characterized, and control measures cited.

3419-69
**LIST OF PLANT DISEASES RECORDED IN TASMANIA.**
*Tasmanian J Agr 39(2):93-94*
May 1968 23 T182T
Catalogs, Plant diseases, Zoogeography.

3420-69
**HOST RANGE AND PARTICLE LENGTH OF PASSIONFRUIT WOODINESS VIRUS.**
D S Teakle G B Wildermuth
*Queensland J Agr Anim Sci 24(2):173-186*
Jun 1967 23 Q37
Electron microscopy, Granadilla, Host indexing (plants), Morphology, Virus diseases (plants), Virus 1.

3421-69
**THE INFECTIVITY OF TOBACCO MOSAIC VIRUS RNA IN COAT PROTEINS FROM SPHERICAL VIRUSES.**
B J M Verduin J B Bancroft
*Virology 37(3):501-506*
Mar 1969 448.8 V81
Broadbeans, Bromus, Cowpeas, Molecular weight, Mosaic, Mottle, Proteins, Ribonucleic acid, Tobacco, Virology, Virus diseases (plants).

3422-69
**THE INFECTION OF LEAFHOPPERS BY WESTERN X-DISEASE VIRUS. V. PROPERTIES OF THE INFECTIOUS AGENT.**
R F Whitcomb D D Jensen J Richardson
*J Invertebrate Pathol 12(2):192-201 REF*
Nov 1968 421 J826
Cicadellidae, Colladonus montanus, Fruit, Insect diseases, Properties, Virus diseases (insects), Western X.

3423-69
**SPORE DEVELOPMENT IN THE BROWN ROT FUNGI (SCLEROTINIA SPP).**
H J Willetts 42d calonge
*New Phyto Logist 68(1):123-131 REF*
Jan 1969 450 N42
Brown rot, Citrus, Conidia, Electron microscopy, Fungus diseases (plants), Plant morphology, Sclerotinia, Spores.

3424-69
**STRUCTURE OF LETTUCE NECROTIC YELLOWS VIRUS. II. ELECTRON MICROSCOPIC STUDIES ON THE EFFECT OF PH OF PHOSPHOTUNGSTIC ACID STAIN ON THE MORPHOLOGY OF THE VIRUS.**
B S Wolanski R I B Francki
*Virology 37(3):439-447*
Mar 1969 448.8 V81
Electron microscopy, Hydrogen-ion concentration, Lettuce, Necrosis, Virology, Virus diseases (plants), Yellows.

## ARTHROPODS

3425-69
**WATCH FOR NEW COTTON INSECTS.**
*USDA PA- (888):1-2*
Oct 1968 1 AG84PRO
Cotton, Insect control, Insect pests, Insect taxonomy, Plant injuries, Quarantine treatments, Weather. Earias insulana, Empoasca lybica, Diparopsis castanea, spodoptera litura, Caliothrips impurus and Dysdercus nigrofasciatus.

3426-69
**THE SPOTTED ALFALFA APHID; HOW TO CONTROL IT.**
*U S D A Leafl 422:2-8*
Aug 1968 1 AG84L
Alfalfa, Chemical control (insects), Insect pests, Insecticides, Integrated control (insects), Plant pest resistance, Safety education, Therioaphis maculata.

3427-69
**DEVELOPMENT OF THE CHEMICAL CONTROL OF FOREST PESTS DURING THE LAST TEN YEARS. (RUM )**
M Arsenescu
*Rev Padurilor 83(7):356-360*
Jul 1968 99.8 R327
Chemical control (insects), Forest insects, Insect pests, Spraying equipment.

3428-69
**THE MITE BATTLE GOES ON AND ON.**
D Asquith
*Amer Fruit Grower 89(2):18*
Feb 1969 80 G85W
Acaricides, Apples, Biological control (insects), Chemical control (insects), Insect pests, Integrated control (insects), Mites, Predaceous insects.

3429-69
**INTERRELATIONSHIP OF THREE LABORATORY SCREENING PROCEDURES FOR BREEDING ALFALFA RESISTANT TO THE ALFALFA WEEVIL.**
D K Barnes R H Ratcliffe C H Hanson
*Crop Sci 9(1,JAN/FEB):77-79*
1969 64.8 C883
Alfalfa, Crop varieties, Feeding, Hypera postica, Insect pests, Plant breeding, Plant pest resistance, Testing.

3430-69
**ACTUAL STATE OF RESEARCH IN PROGRESS ON INTEGRATED PEST CONTROL IN THE CASE OF COCCIDAE IN FRANCE. (FR )**
C Benassy H Bianchi H Milaire
*Entomophaga 7(1):59-68*
1962 421 EN835
Aphelinus mali, Apples, Aspidiotus perniciosus, Carpocapsa pomonella, Coccidae, Eriosoma lanigerum, Integrated control (pests), Prospaltella perniciosi, Research, Tree injuries.

3431-69
**MYCOPLASMA-LIKE MICROORGANISM AND VIRUS PARTICLES IN THE LEAPHOPPER JAVESELLA PELLUCIDA (F.) TRANSMITTING THE OAT STERILE DWARF DISEASE.**
J Brcak O Kralik
*Biol Plant 11(1):95-96*
1969 450 B52
Dwarf disease, Electron microscopy, Insect vectors, Javesella pellucida, Oats, Virus diseases (plants).

3432-69
**A CONTRIBUTION TO THE STUDY OF SOME DRY ATTRACTANT PRODUCTS EFFECTS ON CERATITIS CAPITATA WIED. (SE )**
D Brnetic
*Agrohemija (516):217-220*
1968 385 AG87
Angelica, Attractants, Ceratitis capitata, Siglure, Trimedlure. French summary.

3433-69
**HORTICULTURE...CONTROLLING ORCHARD PESTS.**
T J Conway P J Ward
*Agr North Ireland 42(12):414-417*
Apr 1968 256.13 AG82M
Aphididae, Apples, Chemical control (insects), Insecticides, Spraying.

3434-69
**REDUCING DDT PERSISTENCE.**
*Aust Tob Growers Bull (12):22*
1968 69.8 AU72
Anaerobic bacteria, DDT, Insect pests, Insecticide resistant insects, Plant protection, Tobacco.

3435-69
**NEMATODE - BACTERIA TEAM FOR INSECT CONTROL.**
*Aust Tob Growers Bull (12):22*
1968 69.8 AU72
Bacteria, Biological control (insects), Insect pests, Nematodes, Plant protection, Tobacco.

3436-69
**BIOECOLOGY AND CHEMICAL CONTROL OF THE APPLE CODLING MOTH (CARPOCAPSA POMONELLA) L. IN MENDOZA. (SP )**
J C Espul N J A Cucchi F C La Red
*Rev Invest Agr Ser 5, Patol Veg 3(9):105-141*
1966 464.8 R322
Apples, Attractants, Carpocapsa pomonella, Chemical control (insects), DDT, Insect ecology, Life cycle, Light traps, Methyl demeton, Parasitic insects, Phosphamidon. English abstract

3437-69
**SUSTAINED NATURAL INFESTATION BY THE MOUNTAIN PINE BEETLE IN SEVEN NEW PINUS AND PICEA HOSTS.**
M M Furniss J A Schenk
*J Econ Entomol 62(2):518-519*
15 Apr 1969 421 J822
Dendroctonus ponderosae, Forest insects, Insect infestation, Picea, Pinus. The beetle was investigated in the following hosts plants: Pinus banksiana, P. nigra, P. resinosa, P. rigida, P. strobus, P. sylvestris and picea abies.

3438-69
**CONTROL OF EPHESTIA ELUTELLA (HB.)(LEPIDOPTERA, PHYCITIDAE) USING DICHLORVOS IN OIL.**
A A Green J Kane S G Heuser K A Scudamore
*Plant Protect Abs 4:192-193*
Sep 1968 241.75 P69
Dichlorvos, Ephestia elutella, Insecticides, Lepidoptera, Oils, Plant protection. Journal of Stored Products research, vol. 4, no. 1, May 1968, p.69-75.

3439-69
**THE LIFE HISTORY OF APHRASTASIA PECTINATAE (CHOL.) VAR. ISHIHARAI INOUYE (HOMOPTERA: ADELGIDAE). (JA )**
T Hirasa
*Hokkaido Forest Exp Sta Annu Rep 74-78*
Sep 1968 99.9 J2724A
Abies sachalinensis, Aphrastasia pectinatae, Gall-making insects, Insect biology, Picea. English summary.

3440-69
**BEHAVIOR OF THE SPOTTED ALFALFA APHID ON RESISTANT AND SUSCEPTIBLE ALFALFAS.**
S D Kindler R Staples
*J Econ Entomol 62(2):474-478 REF*
15 Apr 1969 421 J822
Alfalfa, Insect behavior, Plant pest resistance, Plant physiology, Therioaphis maculata.

3441-69
**THE PINE CHRYSOMELID, GLYPTOSCELIS PUBESCENS, IN NORTHWESTERN WISCONSIN.**
M G Klein H C Coppel
*Entomol Soc Amer Ann 62(1):1-7 MAP REF*
15 Jan 1969 420 EN82
Chrysomelidae, Diprion similis, Eupelmidae, Foliage, Insect behavior, Insect eggs, Insect morphology, Insect pests, Larvae, Parasitism, Pinus strobus.

3442-69
**A MITE TO COMBAT COCONUT CATERPILLAR.**
K Mathen B Sathiamma C Kurian
*Indian Farming 18(5):32-33*
Aug 1968 22 IN283
Acarina, Biological control (insects), Coconuts, Larvae, Lepidoptera, Life cycle, Parasitic insects, Pyemotes ventricosus.

The life history and the role of the mite Pyemotes ventricosus is discussed as a potential biological control agent of Nephantis serinopa, a serious pest of coconuts.

3443-69
**GLASSHOUSE SYMPHYLIDS.**
*Great Brit Min Agr Fish Food Adv Leafl (484):1-5*
Jun 1967 10 G79LA
Cabbage, Chemical control (insects), Crop rotation, Diazinon, Insect identification, Insect pests, Insecticides, Life cycle, Lindane, Parathion, Root hairs, Scutigerella immaculata, Soil sterilization, Tomatoes.

The life cycle of symphylids and the nature of the injury they cause to plants by destroying root hairs are discussed. Soil sterilization and treatment with lindane, diazinon, and parathion are recommended as control measures.

3444-69
**A LARGE-SCALE EXPERIMENT IN THE ARTIFICIAL BIOLOGICAL CONTROL OF THE OLIVE FLY, DACUS OLEAE, BY MEANS OF OPIUS CONCOLOR SICULUS IN SICILY, PALERMO, JULY-OCTOBER 1966.**
S Monastero P Delanoue
*Plant Protect Abs 4:195-196*
Sep 1968 241.75 P69
Biological control (insects), Dacus oleae, Insect pests, Opius, Plant protection, Research, Time. Boll. Inst. Ent. Agrar. Osserv. Fitopat. Palermo, 1965-1966, 6:145-94.

3445-69
**ON THE POSSIBILITIES OF INSECTS AS THE CARRIERS OF ROOT-ROT FUNGUS (FOMES ANNOSUS (FR.) COOKE). (GE )**
M Nuorteva L Laine
*Suomen Hyonteistieteellinen Aikakauskir Ann Entomol Fenn 34(3):113-135 REF*
1968 421 SU7
Blastophagus piniperda, Fomes annosus, Fungus diseases (plants), Hylobius, Insect vectors, Plant nematodes, Root rot.

3446-69
**THE PRESENT STATUS OF RICE PEST RESEARCH AND CONTROL. (GE )**
B Ohnesorge
*Berlin Biol Bundesanst Land-forstwirtsch Mitt (129):7-71-REF*
Aug 1968 410.9 G31M
Agricultural research, Biological control (pests), Chemical control (pests), Crop losses, Insect ecology, Insect pests, Insect taxonomy, Nematodes, Plant breeding, Rice.

3447-69
**INSECT PESTS OF SAFFLOWER.**
F D Page
*Queensland Agr J 94(8):475-477*
Aug 1968 23 Q33
Crop yields, Insect pests, Plant injuries, Plant protection, Safflower.

3448-69
**THREE LABORATORY TECHNIQUES FOR SCREENING SMALL GRAINS FOR RESISTANCE TO THE CEREAL LEAF BEETLE.**
J A Schillinger
*J Econ Entomol 62(2):360-363*
15 Apr 1969 421 J822
Barley, Crop varieties, Insect physiology, Oats, Oulema melanopus, Triticum aestivum.

3449-69
**LYGUS-BUG FEEDING ON DEVELOPING CARROT SEED: EFFECT ON PLANTS GROWN FROM THAT SEED.**
D R Scott
*J Econ Entomol 62(2):504-505 REF*
15 Apr 1969 421 J822
Carrots, Feeding, Gall-making insects, Insect pests, Lygus, Plant injuries, Plant physiology, Seedlings.

3450-69
**CHEMICAL CONTROL OF THE ROSE MITE--TETRANYCHUS URTICAE (KOCH, 1836) BORDREAUX AND DOSSE, 1963 (ACARINA, TETRANYCHIDAE). (POR )**
N Suplicy Filho R Calza
*Biologico 34(11):251-253*
Nov 1968 442.8 B529
Acaricides, Chemical control (insects), Insect control, Rosa, Tetranychus urticae.

3451-69
**RESISTANCE OF CORN TO LABORATORY INFESTATION OF THE LARGER RICE WEEVIL, SITOPHILUS ZEAMAIS.**
P VanDerSchaaf D A Wilbur R H Painter
*J Econ Entomol 62(2):352-355 REF*
15 Apr 1969 421 J822
Corn, Insect dissemination, Insect pests, Plant pest resistance, Sitophilus zeamais.

3452-69
**THE TREATMENT OF PUPAL INTEGUMENTS WITH CHEMOSTERILANTS AS A WAY OF THE TURNIP MOTH SEXUAL STERILIZATION. (RU )**
S T Vasyurin
*Zool Zhur 48(3):443-446 REF*
Mar 1969 410 R92
Agrotis segetum, Chemical control (insects), Chemosterilants, Insect control, Pupae, Thiotepa. English abstract

3453-69
**EFFECT OF TEMPERATURE ON RESISTANCE IN LIMA BEAN, TOMATO, AND CHRYSANTHEMUM TO LIRIOMYZA MUNDA.**
R E Webb F F Smith
*J Econ Entomol 62(2):458-462 REF*
15 Apr 1969 421 J822
Chrysanthemum, Insect mortality, Insect physiology, Lima beans, Liriomyza munda, Plant pest resistance, Temperature, Tomatoes.

3454-69
**ABSORPTION, TRANSLOCATION, AND DISTRIBUTION OF PHORATE IN LOBLOLLY PINE SEEDLINGS.**
R A Werner E W Clark
*J Econ Entomol 62(2):436-437 REF*
15 Apr 1969 421 J822
Absorption, Biological assay, Chemical control (insects), Forest insects, Phorate, Pinus taeda, Plant physiology, Plant translocation, Seedlings.

## NEMATODES

3455-69
**RED RING DISEASE OF THE COCONUT PALM, INOCULATION STUDIES AND HISTOPATHOLOGY.**
G P Blair H M Darling
*Nematologica 14(3):395-403 REF*
1968 436.8 N342
Coconuts, Plant histology, Plant nematodes, Red ring, Rhadinaphelenchus cocophilus, Roystonea oleracea.

3456-69
**DYNAMICS OF THE PERMEATION OF NEMATODES BY WATER, NEMATOCIDES AND OTHER SUBSTANCES.**
C F Marks I J Thomason C E Castro
*Exp Parasitol 22(3):321-337 REF*
Jun 1968 436.8 EX7
Carbon isotopes, Dibromo-3-chloropropane, 1,2-, Ethylene dibromide, Nematocides, Permeability, Plant nematodes, Radioactive tracers, Water.

3457-69
**THE DISTRIBUTION OF THE CEREAL CYST NEMATODE (HETERODERA AVENAE) IN VICTORIA AND ITS RELATION TO SOIL TYPE.**
J W Meagher
*Australian J Exp Agr Anim Husb 8(34):637-640 REF*
Oct 1968 23 AU792
Heterodera avenae, Plant nematodes, Soil series, Surveys, Zoogeography.

3458-69
**CEREAL CYST EELWORM.**
*Great Brit Min Agr Fish Food Adv Leafl (421):1-6*
Feb 1967 10 G79LA
Biology, Crop rotation, Crop yields, Grain, Heterodera avenae, Plant nematodes.

The life cycle and means of detection, prevention and control of the cereal cyst eelworm (Heterodera avenae) are discussed. Avoidance of excessive oat crops, good soil maintenance and crop rotation are recommended as control measures.

3459-69
**POTATO TUBER EELWORM.**
*Great Brit Min Agr Fish Food Adv Leafl (372):1-4*
May 1966 10 G79LA
Crop yields, Ditylenchus destructor, Host range, Life cycle, Nematode control, Plant nematodes, Potatoes, Tillage, Weed control.

The life cycle of the potato tuber eelworm (Ditylenchus, destructor), the nature of its injury to potatoes, importance of alternate hosts, and means for control are discussed. The use of seeds from uninfected stock, and of less susceptible varieties, herbicidal control of weeds and proper handling of infected tubers are the recommended control measures.

3460-69
**STEM EELWORM ON CLOVER.**
*Great Brit Min Agr Fish Food Adv Leafl (409):1-5*
May 1968 10 G79LA
Chemical control (nematodes), Crop rotation, Ditylenchus dipsaci, Methyl bromide, Nematocides, Plant nematode resistance, Plant nematodes, Red clover.

The life cycle of the clover stem eelworm (Ditylenchus dipsaci), its mode of transmission, the nature of the injury it produces and its detection in infected plants are discussed. Crop rotation, use of resistant varieties of clover and fumigation of seed with methyl bromide are the recommended control measures.

3461-69
**HOT-WATER TREATMENT OF PLANT MATERIAL.**
*Great Brit Min Agr Fish Food Bull (201):1-42 REF*
1967 10 G794B
Bulbs, Chrysanthemum, History, Hot water treatment (plants), Nematode control, Plant disease control, Plant nematodes, Seeds, Strawberries.

3462-69
**NEMATODES IN AN IRRIGATED VINEYARD.**
M R Sauer
*Nematologica 14(3):457-458*
1968 436.8 N342
Dibromo-3-chloropropane, 1,2-, Grape vineyards, Irrigation, Plant nematodes, Soil fumigation.

3463-69
**TRANSMISSION OF VIRUSES BY LONGIDORUS ELONGATUS.**
A M Yassin
*Nematologica 14(3):419-428 REF*
1968 436.8 N342
Animal vectors, Black ring, Chenopodium amaranticolor, Longidorus elongatus, Plant disease transmission, Plant nematodes, Ring spot, Virus diseases (plants).

## WEEDS

3464-69
**HOW HERBICIDES WORK.**
Anonymous
*Aust Tob Growers Bull (14):14*
1968 69.8 AU72
Chemical control (weeds), Herbicide application, Herbicides, Light, Preemergence, Rainfall, Seedlings, Temperature.

3465-69
**THE STATUS OF PREVENTIVE WEED CONTROL.**
Z A Barker C R Edwards T H Harris W L Mathews W J Pitner J P Rogers R A Scott J F Spears W C Shaw
*Weed Sci 17(1):126-127*
Jan 1969 79.8 W41
Agricultural administration, Economics, Legislation, Regulations, Weed control.

3466-69
**PLAINS PRICKLYPEAR: RELATION TO GRAZING INTENSITY AND BLUE GRAMA YIELD ON CENTRAL GREAT PLAINS.**
R E Bement
*J Range Manage 21(2):83-86 REF*
Mar 1968 60.18 J82
Bouteloua gracilis, Cattle, Crop yields, Forage plants, Loam, Opuntia, Plant reproduction.

Abstract: Removal and heavy grazing of prickley pear by cattle.

3467-69
**CONCERNING THE PROBLEM OF THE PERSISTENCE OF CERTAIN WEEDS IN WEEDED CULTURES AND IN THE FALL SOWING OF THE BANAT REGION. (RUM )**
G Bujoreanu S Grigore N Arvat
*Bucharest Inst Agron Timesoara Lucari Stiint 5:97-114 REF*
1962 106.4 T48
Chernozems, Marshes, Plant geography, Podzol soils, Tables (data), Weed control, Weeds. French and Russian summaries. a list of 132 weeds is included.

3468-69
**INFLUENCE OF TIME AND METHOD OF APPLICATION ON TURKEY OAK RESPONSE TO PICLORAM PLUS 2,4-D.**
H D Coble R P Upchurch J A Keaton
*Weed Sci 17(1):87-91*
Jan 1969 79.8 W41
D, 2,4-, Dosage, Herbicide application, Herbicides, Methodology, Picloram, Plant physiology, Quercus laevis, Time.

3469-69
**WEED CONTROL IN BEETS ON HUMUS RICH SOIL. (GE )**
J Englet L Lehmann
*Gesunde Pflanzen 20(8):160-163*
Aug 1968 464.8 G33
Beets, Chemical control (weeds), Herbicides, Humus, Spraying.

3470-69
**SOME UNDERGROUND RELATIONSHIPS BETWEEN AGROPYRON SPICATUM AND BROMUS TECTORUM.**
G A Harris
*Amer Forage Grassland Council 1966 MEETING:28-29*
01 Feb 1966 60.19 J66
Agropyron spicatum, Bromus tectorum, Chemical control (weeds), Fertilizers, Forage plants, Grasses, Nitrates, Plant morphology, Plant physiology, Roots, Seed germination, Seedlings.

3471-69
**COMPETITIVE EFFECTS OF ANNUAL WEEDS ON SPANISH PEANUTS.**
L V Hill P W Santelmann
*Weed Sci 17(1):1-2*
Jan 1969 79.8 W41
Annual plants, Crop yields, Growth factors, Peanuts, Plant physiology, Soil moisture, Weeds.

3472-69
**WEED PROBLEMS IN DEVELOPING COUNTRIES.**
L Holm
*Weed Sci 17(1):113-118 MAP*
Jan 1969 79.8 W41
Weed control, Weeds, World agricultural situation.

3473-69
**ON THE APPLICATION OF HERBICIDES ON BODIES OF WATER. (GE )**
H Johannes
*Berlin Biol Bundesanst Land-forstwirtsch Mitt (126):5-118 REF*
Dec 1967 410.9 G31M
Aquatic weeds, Chemical control (weeds), Dalapon, Dosage, Gardencress, Herbicides, Oxygen, Paraquat, Triazine, Triticum vulgare. English abstract

3474-69
**ATTRAZINE AGAINST WILD OATS IN CORN FIELDS. (GE )**
W Kampe
*Gesunde Pflanzen 19(2):30-31*
Feb 1967 464.8 G33
Atrazine, Avena fatua, Chemical control (weeds), Corn, Dosage, Galium aparine, Herbicides.

3475-69
**LONG-TERM EFFECTS OF 2,4-D ON LANCELEAF RABBITBRUSH AND ASSOCIATED SPECIES.**
W A Laycock T A Phillips
*J Range Manage 21(2):90-93 REF*
Mar 1968 60.18 J82
Achillea millefolium, Agropyron spicatum, Chemical control (weeds), Chrysothamnus, D, 2,4-, Eriogonum heracleoides, Festuca idahoensis, Forage plants, Herbicides, Lupine, Potentilla.

Abstract: Grass increased, soil must be moist to achieve spray affects.

3476-69
**PLACEMENT OF EPTC-FERTILIZER WHEN SEEDING BIRDSFOOT TREFOIL.**
D L Linscott R D Hagin
*Weed Sci 17(1):108-109*
Jan 1969 79.8 W41
Birdsfoot trefoil, Chemical control (weeds), Ethyl N,N-dipropylthiolcarbamate, Fertilizers, Herbicide application, Herbicides, Methodology, Planting.

3477-69
**THE POSSIBLE ROLE OF PATHOGENIC FUNGI IN LOCAL DEGENERATION OF SALVINIA AURICULATA AUBLET ON LAKE KARIBA.**
A R Loveless
*Ann Appl Biol 63(1):61-69*
Feb 1969 442.8 AN72
Alternaria, Biological control (weeds), Degeneration, Fungus diseases (plants), Salvinia auriculata.

3478-69
**HERBICIDES IN USE.**
A D Mears
*Agr Gaz New S Wales 79(6):352-355*
Jun 1968 23 N472
Catalogs, Chemical control (weeds), Herbicides, Methodology, Weed control.

This article contains a list of the main herbicides in use and remarks on their applicability to various weeds and application methods.

3479-69
**THE CONTROL OF RUSHES.**
*Great Brit Min Agr Fish Food Adv Leafl (433):1-5*
Oct 1966 10 G79LA
Chemical control (weeds), Cultural control (weeds), D, 2,4-, Grazing, Juncus, Methyl-4-chlorophenoxyacetic acid, 2-, Plant geography, Plant morphology, Tillage.

Descriptions and geographic distribution of several species of rushes (Juncus) are provided. Sward cover, grazing, plowing and spraying with 2,4-D and MCPA are the recommended control measures.

3480-69
**COMMON CHICKWEED.**
*Great Brit Min Agr Fish Food Adv Leafl (528):1-5*
Feb 1968 10 G79LA
Chemical control (weeds), Crops, Cultural control (weeds), Herbicide application, Stellaria media.

Lists are provided on recommended application rates for herbicidal control of chickweed (Stellaria media) and crops on which the herbicides may be used. Cultivation and grazing methods are also recommended.

3481-69
**PROCESS OF KILLING PLANTS. PATENT 3,416,912.**
E K Regel M F Botts
*Off Gaz Patent Abst Sect 883-884*
17 Dec 1968 T223.A2
Herbicides, Patents, Weed control.

3482-69
**ECOLOGICAL ASPECTS OF WEED CONTROL IN COTTON IN THE ORD RIVER VALLEY, W.A. I. CONDITIONS AFFECTING GERMINATION OF WEEDS.**
P J van Rijn
*Australian J Exp Agr Anim Husb 8(34):620-624*
Oct 1968 23 AU792
Cotton, Harvesting, Plant ecology, Seed germination, Seed treatment, Temperature, Weed contro..

3483-69
**TRIFLURALIN AND BENEFIN--NEW HERBICIDES FOR VEGETABLE GROWERS.**
P F Rylands
*Agr Gaz New S Wales 79(7):400-403*
Jul 1968 23 N472

3484-69

Benefin, Chemical control (weeds), Grasses, Herbicide application, Soil adsorption, Treflan, Vegetables.

3484-69
**STUDIES ON WEED CONTROL IN POTATO BY PRE-EMERGENCE TREATMENT WITH 2,4-DICHLOROPHENOXYACETIC ACID.**
G Singh P A Adlakha
*Prog Farming 4(3):360-369*
Sep 1967 S19.P8
Crop yields, D, 2,4-, Potatoes, Research, Spraying, Weed control.

3485-69
**ON THE EFFECT OF HERBICIDES ON SOME AGROPHYTOCOENOSES. (RU**
A G Skorniakova B K Bogachiov
*Bot Zhur (moscow) 54(2):222-231 REF*
Feb 1969 451 R923
Chemical control (weeds), Herbicides, Peas, Plant ecology, Simazine, Weed control. English abstract

3486-69
**LIGHT FILTRATION BY FOLIAR CANOPIES: SIGNIFICANCE FOR LIGHT-CONTROLLED WEED SEED GERMINATION.**
R B Taylorson H A Borthwick
*Weed Sci 17(1):48-51*
Jan 1969 79.8 W41
Chromoproteins, Corn, Filters, Leaves, Light, Plant growth inhibitors, Seed germination, Soybeans, Tobacco, Weeds.

3487-69
**RAINFALL EFFECTS FOLLOWING HERBICIDAL TREATMENT OF WOODY PLANTS.**
R P Upchurch H D Coble J A Keaton
*Weed Sci 17(1):94-98 REF*
Jan 1969 79.8 W41
Acer rubrum, Chemical control (weeds), Climbing plants, D, 2,4-, Dosage, Herbicide application, Herbicides, Picloram, Quercus laevis, Rainfall, T, 2,4,5-.

3488-69
**GORSE CONTROL AT A PROFIT.**
D B Wilson
*Tasmanian J Agr 39(2):88-92*
May 1968 23 T182T
Crop yields, Cultural control (weeds), Fertilizer application, Pasture management, Rabbits, Sheep, Superphosphates, Ulex, Weed control.

Land heavily infested with gorse (Ulex) was finally controlled by heavy stocking with sheep. Wool quality and quantity improved on this forced gorse feeding.

3489-69
**CONTROL AND ECOLOGICAL STUDIES OF SCOTCH THISTLE.**
J A Young R A Evans
*Weed Sci 17(1):60-63*
Jan 1969 79.8 W41
Chemical control (weeds), Dosage, Herbicide application, Herbicides, Onopordum acanthium, Picloram, Plant ecology.

3490-69
**BARBAN FOR WILD OAT CONTROL. PATENT 3,416,913.**
H C Jr. Zeisig O L Hoffman
*Off Gaz Patent Abst Sect 884*
17 Dec 1968 T223.A2
Avena fatua, Barban, Herbicides, Patents, Weed control.

## OTHER PESTS

3491-69
**METHOD FOR DISPERSING TOXICANTS TO KILL DISEASE-SPREADING WATER-SPAWNED LARVA, TREMATODES, MOLLUSKS AND SIMILAR ORGANISMS, AND PRODUCTS USED IN SUCH METHOD. PATENT 3,417,181.**
N F Cardarelli
*Off Gaz Patent Abst Sect 931*
17 Dec 1968 T223.A2
Chemicals, Larvae, Mollusks, Patents, Pesticide application, Trematoda.

3492-69
**BLACKBIRD DEPREDATION IN AGRICULTURE.**
*Agr Sci Rev 5(2, 2ND QUARTER):15-22 MAP*
1967 431.3 AG893
Agricultural research, Bird control, Bird pests, Blackbirds, Crop losses, Ecology.

3493-69
**ASPECTS OF TRAPPING SLUGS WITH METALDEHYDE AND BRAN. (ABSTRACT).**
D Webley
*Pesticide Progr 5(3):81*
May 1967 79.8 P434
Carbaryl, Fungicides, Metaldehyde, Slugs, Traps. This was the author's abstract taken from Ann. Appl. Biol. 56(1):37-45. 1965.

# LIVESTOCK PROTECTION

3494-69
**CONTRIBUTION TO THE QUESTION OF THE EFFECT OF RADIOACTIVE IODINE ON THYROID FUNCTION IN GOATS. (GE )**
L A L L Ayoub
*Deut Tierarztl Wochensch 75(14):341-344 REF*
15 Jul 1968 41.8 D482
Animal physiology, Castration, Goats, Iodine isotopes, Laboratory animals, Protein fractions, Thyroid gland. English summary

3495-69
**SILICA EXCRETION IN CATTLE FED A RATION PREDISPOSING TO SILICA UROLITIASIS: TOTAL EXCRETION AND DIURNAL VARIATIONS.**
C B Bailey
*Amer J Vet Res 28(127):1743-1749 REF*
Nov 1967 41.8 AM3A
Alfalfa, Animal physiology, Cattle, Diuresis, Excreta, Hay, Silica, Urine, Urolithiasis.

3496-69
**PIG HEALTH SCHEME.**
A G Beynon
*Pig Farming 16(10):57,69*
Oct 1968 46.8 P623
Agricultural economics, Animal breeding, Swine, Veterinary medicine.

3497-69
**HALF-PERIODS OF SERUM PROTEINS IN THE DOG.**
F W Bruenger W Stevens B J Stover
*Amer J Vet Res 28(127):1699-1703 REF*
Nov 1967 41.8 AM3A
Blood proteins, Dogs, Electrophoresis, Half-life, Methionine, Radioactive tracers.

3498-69
**FOOD ADDITIVES PERMITTED IN THE FEED AND DRINKING WATER OF ANIMALS OR FOR THE TREATMENT OF FOOD-PRODUCING ANIMALS. FEED GRADE BIURET.**
*Fed Regist 34(33):2307*
18 Feb 1969 L1.451
Animals, Biuret, Feed, Food additives, Water. This article is a correction for Feb. 7, 1969 issue appearing on page 1826.

3499-69
**ORGANIZATION AND METHODS OF CENSUSING BIRDS AND HARMFUL RODENTS.**
A N Formozov Y A Isakov
*269P REF JERUSALEM, ISRAEL PROGRAM FOR SCIENTIFIC TRANS.*
1967 SK282.F63
Beneficial birds, Birds, Methodology, Organizations, Rodents, Statistics. Translated from Russian.

3500-69
**PROTEIN-BOUND IODINE IN THE HORSE.**
C H G Irvine
*Amer J Vet Res 28(127):1687-1692 REF*
Nov 1967 41.8 AM3A
Animal temperature, Blood tests, Horses, Iodine, Pregnancy, Proteins, Veterinary medicine.

3501-69
**CONTROL CATTLE GRUBS.**
G F Knowlton D W Thomas R S Roberts
*Utah State Univ Ext Ext Leafl 87:3-7*
1968 275.29 UTIL
Anoplura, Beef cattle, Chemical control (insects), Chemicals, Dairy cattle, Grubs, Insect histology. Coumaphos, Trichlorfon, Ruelene, Ronnel were the chemicals used in this study

3502-69
**CARBAMYL PHOSPHATE SYNTHETASE IN THE CHICK.**
C G Maresh T H Kwan S M Kalman
*Can J Biochem 47(1):61-63*
Jan 1969 470 C16E
Biochemistry, Carbamyl, Chick embryos, Chicks, Enzymes, Liver, Phosphates, Pyrimidines.

3503-69
**LONG-ACTING SULFONAMIDES IN CATTLE: A STUDY OF PHARMACOLOGIC PROPERTIES.**
R Silvestri G P Magnifico F S Glatstein G
*Amer J Vet Res 28(127):1783-1797 REF*
Nov 1967 41.8 AM3A
Blood analysis, Cattle, Pharmacology, Sulfonamides, Toxicology, Veterinary medicine.

3504-69
**EXPERIMENTAL RESEARCH ON THE INFLUENCE OF INSULIN ON THE PRODUCTION OF MILK AND MEAT IN CATTLE. (RUM )**
P Spinu I Dancea V Fedorovici
*Bucharest Inst Agron Timesoara Lucari Stiint 5:129-134 REF*
1962 106.4 T48
Beef, Cattle, Insulin, Milk. French and Russian summaries.

3505-69
**HISTAMINE IN THE COW. EFFECT OF HISTAMINE AND ESTRADIOL ADMINISTRATION ON PROTEIN CONCENTRATIONS IN MILK.**
A Zarkower
*Amer J Vet Res 28(127):1757-1762 REF*
Nov 1967 41.8 AM3A
Blood proteins, Edema, Estradiol, Histamine, Mammary glands, Milk, Serum albumin, Serum globulins.

## DISEASES

3506-69
**THE INCIDENCE OF AVIAN LEUCOSIS COMPLEX IN NON-NATIVE POULTRY. (PE )**
A Afshar M Edjtehadi H Kayvanfar
*Tehran Univ Vet Fac J 24(3/4):118-128 REF*
Sep 1968 41.9 T23
Avian leukosis complex, Avian lymphomatosis, Chickens, Diagnosis, Epidemiology, Immunization, Poultry diseases, Vaccines, Virus diseases (animals). English summary.

3507-69
**INTERSTATE MOVEMENT OF VACCINES AND SWINE TREATED WITH SUCH VACCINES; NOTICE REGARDING PROPOSED AMENDMENTS AND OF HEARING THEREON.**
R J Anderson
*Fed Regist 34(63):6047*
03 Apr 1969 L1.451
Hog cholera vaccines, Interstate commerce, Livestock diseases, Regulations, Swine, Vaccines.

3508-69
**SULPHAMIDE AND ANTIBIOTIC SENSITIVITY OF SOME LISTERIA MONOCYTOGENES STRAINS ISOLATED FROM ANIMALS. (RUM )**
A Baies D Marica M Pop
*Rev Zootech 17(2):41-45*
Feb 1967 49 P943
Animal diseases, Antibiotics, Bacteria, Bacteriology, Immunity, Listeria monocytogenes, Listeriosis, Resistance, Sulfonamides. English, French and Russian summaries.

3509-69
**A STUDY ON THE ECOLOGY OF ARBOVIRUS IN THE PROVINCES OF LATINA AND GORIZIA (1964-1967). (IT )**
M Balducci P Verani G Sacca M C Lopes
*Ist Super Sanit Ann 3(6):705-719*
1967 R65.18
Antibodies, Arboviruses, Ecology, Insect vectors, Serological tests, Virus diseases (animals). English abstract

3510-69
**AN INTERFERENCE TYPE OF SEROLOGICAL TEST FOR INFECTIOUS BRONCHITIS VIRUS USING NEWCASTLE DISEASE VIRUS.**
C W Beard
*Avian Dis 7(4):658-665*
Nov 1968 41.8 AV5
Infectious bronchitis virus, Interference phenomenon, Newcastle disease virus, Poultry, Serological tests, Virus diseases (animals).

3511-69
**FURTHER DATA ON HYPOVITAMINOSIS A IN SWINE. (RUM )**
C Berbinschi T Bugeac S Demetrian
*Rev Zootech 17(2):46-51*
Feb 1967 49 P943
Animal nutrition, Carotenes, Deficiency diseases, Livestock diseases, Swine, Symptomatology, Vitamin a. English, French and Russian summaries.

3512-69
**FINGERPRINTING DISEASE.**
P Best
*Pig Farming 16(10):71-75*
Oct 1968 46.8 P623
Animal diseases, Drugs, Research, Swine, Veterinary medicine.

3513-69
**PATHOGENESIS OF FOOT-AND-MOUTH DISEASE IN ENDOCRINE GLANDS OF EXPERIMENTALLY INFECTED GOATS.**
R C Bhalla G L Sharma
*Indian J Vet Sci Anim Husb 37(4):287-297*
Dec 1967 41.8 IN22
Animal histology, Endocrine glands, Foot-and-mouth disease, Goats, Livestock diseases, Pathogenesis.

3514-69
**STUDIES ON THE PATHOGENESIS OF FOOT-AND-MOUTH DISEASE IN THE PANCREAS OF GOATS.**
R C Bhalla G L Sharma
*Indian J Vet Sci Anim Husb 38(1):60-66*
Mar 1968 41.8 IN22
Animal histology, Foot-and-mouth disease, Goats, Pancreas, Pathogenesis.

3515-69
**BIRDS. IN: DISEASES OF MAN ACQUIRED FROM HIS PETS.**
B Bisseru
*105-148 PHILADELPHIA, LIPPINCOTT*
1967 RC639.B5
Allergies, Animal vectors, Bacterial diseases (animals), Birds, Diagnosis, Disease control, Epidemiology, Helminthiasis, Human diseases, Infectious diseases, Pets, Poisoning, Virus diseases (animals).

3516-69
**RODENTS. IN: DISEASES OF MAN ACQUIRED FROM HIS PETS.**
B Bisseru
*149-221 REF PHILADELPHIA, LIPPINCOTT*
1967 RC639.B5
Animal diseases, Animal vectors, Bacterial diseases (animals), Diagnosis, Epidemiology, Fungus diseases (animals), Helminthiasis, Human diseases, Pesticides, Pets, Protozoa, Rodents, Virus diseases (animals), Wildlife pests.

3517-69
**NON-HUMAN PRIMATES. IN: DISEASES OF MAN ACQUIRED FROM HIS PETS.**
B Bisseru
*222-278 REF PHILADELPHIA, LIPPINCOTT*
1967 RC639.B5
Animal diseases, Animal vectors, Arthropoda, Bacterial diseases (animals), Diagnosis, Epidemiology, Fungus diseases (animals), Helminthiasis, Human diseases, Infectious diseases, Pets, Primates, Virus diseases (animals).

3518-69
**FISH (INCLUDING OTHER MARINE ANIMALD). IN: DISEASES OF MAN ACQUIRED FROM HIS PETS.**
B Bisseru
*412-415 PHILADELPHIA, LIPPINCOTT*
1967 RC639.B5
Animal protective devices, Animal vectors, Aquatic animals, Epidemiology, Fish, Helminthiasis, Human diseases, Infectious diseases, Pets, Wildlife diseases.

3519-69
**REPTILES AND AMPHIBIANS. IN: DISEASES OF MAN ACQUIRED FROM HIS PETS.**
B Bisseru
*404-411 PHILADELPHIA, LIPPENCOTT*
1967 RC639.B5
Amphibians, Animal diseases, Animal vectors, Arthropoda, Bacterial diseases (animals), Drug therapy, Fungus diseases (animals), Human diseases, Infectious diseases, Pets, Reptiles, Snake venom.

3520-69
**UNGULATES. IN: DISEASES OF MAN ACQUIRED FROM HIS PETS.**
B Bisseru
*279-403 REF PHILADELPHIA, LIPPINCOTT*
1967 RC639.B5
Animal vectors, Bacterial diseases (animals), Diagnosis, Disease control, Epidemiology, Food poisoning, Fungus diseases (animals), Helminthiasis, Human diseases, Livestock, Livestock diseases, Parasitic insects, Pets, Virus diseases (animals).

3521-69
**ZOONOSIS WITH SPECIAL REFERENCE TO THE DISEASES TRANSMITTED FROM DOGS AND CATS.**
B Bisseru
*Malaysian Vet J 4(2):100-106*
Dec 1967 41.9 M292
Birds, Cats, Disease transmission, Dogs, Human diseases, Monkeys, Pets, Rodents, Zoonoses.
A list of the most important infections acquired from dogs, cats, and certain types of animals with which we come in contact particularly as pets, in the laboratory or veterinary practice is given.

3522-69
**STUDIES ON THE STABILITY OF SOME BIOLOGICAL PROPERTIES OF THE RABBIT-ADAPTED SWINE FEVER VIRUS STRAIN C.**
L Bran S Mihaita M Popa N Totorcea T Albu N Tigaeru
*Arch Vet 2(2):31-42*
1967 41.8 AR27
Biochemistry, Hog cholera vaccines, Hog cholera virus, Immunity, Rabbits, Testing, Virology. French, German and Russian summaries.

3523-69
**AVIAN LEUCOSES: 1966-1967. (FR )**
A Brion
*Rec Med Vet 144(8):735-741*
Aug 1968 41.8 R24
Antigens, Cells, Culture media, Genetics, Genotypes, Leukosis, Poultry diseases, Resistance, Sarcoma, Serological tests, Susceptibility, Virus diseases (animals). English and Spanish summaries.

3524-69
**OVINE LEPTOSPIROSIS. A STUDY OF ITS FREQUENCY IN ARGENTINA. ISOLATION AND CLASSIFICATION OF A NEW OVINE STRAIN. (SP )**
R A Cacchione V C F Cedro M J D Bulgini E S Cascelli
*Argent Repub Inst Nac Zoonosis Ser Tec (N s)(24):311-318*
1963 41.9 AR36
Bacterial diseases (animals), Leptospira ballum, Leptospirosis, Livestock diseases, Serological tests, Sheep. English summary.
Reprint from: Revista de Investigaciones Ganaderas no. 18.

3525-69
**BRUCELLOSIS VACCINATION OF CALVES.**
*Can Dep Agr Publ (1371):4P*
1968 7 C16PU
Bacterial diseases (animals), Brucellosis, Calves, Drug therapy, Immunization, Livestock diseases, Vaccines.

3526-69
**ANTHRAX.**
*Can Dep Agr Publ (1366):6P*
1968 7 C16PU
Anthrax, Bacillus anthracis, Bacterial diseases (animals), Disease transmission, Immunization, Livestock diseases, Quarantine, Symptomatology, Vaccines.

3527-69
**THE EFFECT OF ANTIBACTERIALS ON SALMONELLA TYPHIMURIUM WITHIN HATCHING EGGS.**
V L Carlson G H Snoeyenbos
*Avian Dis 7(4):606-614*
Nov 1968 41.8 AV5
Bacteria, Eggs, Livestock diseases, Poultry, Salmonella typhimurium.

3528-69
**A VACCINE AGAINST BRUCELLOSIS OF THE GOAT. (SP )**
V C F Cedro H O Cisale L M E de Benedetti R A Maubecin
*Argent Repub Inst Nac Zoonosis Ser Tec (N s)(25):261-266*
1963 41.9 AR36
Antigens, Bacterial diseases (animals), Brucella abortus vaccines, Brucella melitensis, Brucellosis, Goats, Livestock diseases, Vaccines. English summary.
Reprint from: Revista de Investigaciones Ganaderas No. 18.

3529-69
**BRUCELLOSIS. SOME ASPECTS OF BRUCELLOSIS IN GOATS. (SP )**
V C F Cedro H O Cisale R A Maubecin L M E de Benedetti
*Argent Repub Inst Nac Zoonosis Ser Tec (N s)(15):133-143 MAP REF*
1962 41.9 AR36
Brucella abortus, Brucella melitensis, Brucella suis, Brucellosis, Diagnosis, Goats, Human diseases, Livestock diseases, Symptomatology. English and French summaries.
Reprint from Revista de Investigaciones Ganaderas , no. 14.

3530-69
**VACCINATION AGAINST SWINE BRUCELLOSIS. SECOND FIELD TEST. (SP**
V C F Cedro H O Cisale R Barrantes
*Argent Repub Inst Nac Zoonosis Ser Tec (N s)(3):337-345*
1960 41.9 AR36

Brucellosis, Complement fixation, Immunization, Immunochemistry, Livestock diseases, Swine, Testing, Vaccines. English, French and German summaries.

Reprint from Revista de Investigaciones Ganaderas , no. 10.

**3531-69**
**CASE REPORT: MIXED INFECTIONS WITH SUBGROUPS A AND B AVIAN LEUKOSIS VIRUSES IN COMMERICIAL WHITE LEGHORN CHICKENS.**
B R Cho S G Kenzy U H Kim
*Avian Dis 7(4):585-593 REF*
Nov 1968 41.8 AV5
Avian leukosis complex viruses, Chickens, Livestock diseases, Virus diseases (animals).

**3532-69**
**BRUCELLOSIS IN BULLS. CORRELATIONS BETWEEN CLINICAL SYMPTOMS AND AGGLUTINATION TEST IN BLOOD SERUM AND SEMINAL PLASMA. (SP )**
H O Cisale J E B Ostrowski V C F Cedro L M de Benedetti
*Argent Repub Inst Nac Zoonosis Ser Tec (N s)(18):207-216*
1962 41.9 AR36
Agglutination test, Blood serum, Brucellosis, Bulls, Correlation, Livestock diseases, Semen, Symptomatology. English, French and German summaries.

Reprint from Revista de Investigaciones Ganaderas , no. 14.

**3533-69**
**STUDIES ON ACUTE MAREK'S DISEASE. VII. AIRBORNE TRANSMISSION OF THE GA ISOLATE.**
W M Colwell S C Schmittle
*Avian Dis 7(4):724-729 REF*
Nov 1968 41.8 AV5
Avian lymphomatosis, Gibberellic acid, Livestock diseases, Poultry, Research.

**3534-69**
**A HISTOLOGICAL STUDY OF THE EFFECTS OF ENZOOTIC ABORTION OF EWES VIRUS IN THE LACTATING BOVINE MAMMARY GLAND.**
A H Corner G L Bannister D P Hill
*Can J Comp Med Vet Sci 32(1):372-381*
Jan 1968 41.8 C162
Abortion, Dairy cattle, Histology, Mammary glands, Milk, Research, Sheep, Virus diseases (animals).

**3535-69**
**ETIOLOGY AND TREATMENT OF HYPOMAGNESEMIA IN CATTLE. (RUM )**
I Cristea
*Rev Zootech 17(2):52-58 REF*
Feb 1967 49 P943
Alkali metal salts, Animal nutrition, Cattle, Deficiency diseases, Etiology, Hypomagnesemia, Livestock diseases, Potassium salts, Sodium. English, French and Russian summaries.

**3536-69**
**ACCREDITED PULLORUM TESTED FLOCK SCHEME HATCHERY SCHEME.**
*Agr Gaz New S Wales 79(7):446-448*
Jul 1968 23 N472
Bacterial diseases (animals), Chickens, Poultry disease prevention, Poultry hatcheries, Salmonella pullorum.

In order to be accredited hatcheries and chicken flocks must be tested for pullorum regularly. This article contains a classified list of such accreditations.

**3537-69**
**BOVINE LEPTOSPIRA POMONA INFECTION: THE DISEASE IN CATTLE INFECTED DURING AN EXPERIMENTAL OUTBREAK.**
P C Doherty
*Queensland J Agr Anim Sci 24(3-4,SEP-DEC):351-364 REF*
Dec 1967 23 Q37
Antibodies, Bacterial diseases (animals), Cattle, Leptospira pomona, Livestock diseases, Pathology, Serological tests.

**3538-69**
**BOVINE LEPTOSPIRA POMONA INFECTION: THE DISEASE IN INOCULATED CATTLE.**
P C Doherty
*Queensland J Agr Anim Sci 24(3-4,SEP-DEC):343-350 REF*
Dec 1967 23 Q37
Bacterial diseases (animals), Cattle, Immunity, Leptospira pomona, Symptomatology, Vaccines.

**3539-69**
**VIRUS ISOLATION AND SEROLOGIAL STUDIES OF ARTHROPOD-BORNE VIRUS INFECTIONS IN A HIGH RAINFALL AREA OF NORTH QUEENSLAND.**
R L Doherty H A Standfast E J Wetters R H Whitehead G J Barrow B M Gorman
*Roy Soc Trop Med Hyg Trans 62(6):862-867 REF*
1968 448.9 R813
Arboviruses, Arthropoda, Epidemiology, Insect vectors, Murray valley encephalitis virus, Rainfall, Serological tests, Serum, Sindbis virus, Virus diseases (animals).

**3540-69**
**STUDIES ON GROWTH CURVE, VIRAEMIA AND THE LOCALIZATION OF AFRICAN HORSE SICKNESS VIRUS TYPE IX IN ADULT MICE.**
O P Dwivedi S Kumar
*Indian J Vet Sci Anim Husb 38(1):52-59*
Mar 1968 41.8 IN22
African horse sickness virus, Life cycle, Mice, Viremia.

**3541-69**
**MASTITIS.**
J A Elliott
*Can Dep Agr Publ (1082):5P*
1968 7 C16PU
Antibiotics, Bacterial diseases (animals), Canada, Costs, Disease control, Farm management, Feeds, Livestock diseases, Mastitis, Milking, Milking machines, Symptomatology, Testing, Udders.

**3542-69**
**AN APPROACH TO IDENTIFYING ATYPICAL STREPTOCOCCI FROM BOVINE MASTITIS-SEROLOGICAL CLASSIFICATION AND RESISTANCE DETERMINATIONS. (NO )**
O Engebretsen
*Nord Veterinaermed 20(10):557-561*
Oct 1968 41.8 N813
Antibiotics, Bacteriology, Cattle, Livestock diseases, Mastitis, Resistance, Serological tests, Streptococcus. English and German summaries.

**3543-69**
**A NEW INDUCED TRANSPLANTABLE RAT MAMMARY CARCINOMA.**
G C Engle G R Spencer
*Amer J Vet Res 28(12):1851-1856 REF*
Nov 1967 41.8 AM3A
Adenocarcinoma, Mammary glands, Rats, Transplanting, X-rays.

**3544-69**
**THE INFLUENCE OF SOME MICROELEMENTS ON THE FATTENING PROCESS OF GEESE THROUGH A DIET CONTAINING A LOT OF CORN. (RUM )**
V Fazecas G Nichita N Netedu C Fuchs
*Bucharest Inst Agron Timesoara Lucari Stiint 5:207-213*
1962 106.4 T48
Animal nutrition, Cobalt, Copper, Corn, Geese, Iron, Manganese, Micronutrients. French and Russian summaries.

**3545-69**
**SKIN TUMORS IN NEW YORK DEER.**
M Friend
*Wildlife Dis Ass Bull 3(3):102-104*
Jul 1967 41.9 W64B
Deer, Neoplasms, Research, Skin diseases.

**3546-69**
**THE PRODUCTION AND EFFECT OF INTERFERON ON INFLUENZA VIRUS GROWTH IN CHICK EMBRYO LUNG EPITHELIAL AND FIBROBLAST CELL CULTURES.**
S S Gandhi R B Stewart
*Can J Microbiol 15(3):273-277 REF*
Mar 1969 448.8 C162
Chick embryos, Culture media, Influenza viruses, Interferon, Lungs, Newcastle disease, Synthesis, Virology.

**3547-69**
**LEPTOSPIROSIS.**
R J Gillham
*Tasmanian J Agr 39(3):183-185*
Aug 1968 23 T182T
Cattle, Disease transmission, Hygiene, Leptospira pomona, Leptospirosis, Swine, Symptomatology, Vaccines.

Leptospirosis, caused by Leptospira pomona in cattle and L. hyos in swine, may even be transmitted to man. The symptoms, transmission, and treatment of the disease are presented.

**3548-69**
**ESCHERICHIA COLI SEROGROUP 115 ISOLATED FROM ANIMALS: ISOLATION FROM NATURAL CASES OF DISEASE.**
P G Glantz D C Kradel
*Amer J Vet Res 28(12):1891-1895 REF*
Nov 1967 41.8 AM3A
Animal diseases, Cattle, Escherichia coli bacterin, Gastroenteritis, Septicemia, Sheep, Swine.

**3549-69**
**CONTRIBUTION TO THE STUDY OF MALIGNANT OCULAR NEOPLASMS IN CATTLE. (RUM )**
N Gluhovschi M Rosu I Jivanescu P Bilcea M Nafornita I Garici
*Rev Zootech 18(10):34-37*
Oct 1968 49 P943
Cattle, Etiology, Eyes, Livestock diseases, Neoplasms, Symptomatology.

**3550-69**
**LEPTOSPIROSIS AS A FACTOR OF ABORTION AND STERILITY IN FEMALE DOMESTICATED ANIMALS. (RUM )**
N Gluhovschi V Topciu B Glavan S Levin
*Bucharest Inst Agron Timesoara Lucari Stiint 5:135-143*
1962 106.4 T48
Abortion, Bacterial diseases (animals), Cattle, Leptospirosis, Livestock diseases, Sterility, Swine. French and Russian summaries.

**3551-69**
**THE CONTROL OF FOOTROT.**
N P H Graham
*Inst Vet Insp New S Wales Vet Insp Annu 31:61-64*
1967 41.9 IN73
Antibiotics, Chemical control (animal diseases), Foot rot (animals), Livestock diseases, Sheep.

**3552-69**
**THE OCCURRENCE OF VIRUS AND INTERFERON IN THE SPLEEN SERUM AND BRAIN IN MICE AFTER EXPERIMENTAL INFECTION WITH THE WEST NILE VIRUS.**
S Haahr
*Acta Pathol Microbiol Scand 74(3):445-457 REF*
1968 448.3 AC8
Brain, Dosage, Interferon, Laboratory animals, Mice, Serum, Spleen, Virology, Virus diseases (animals), West nile virus.

**3553-69**
**CONTROL OF TOXOPLASMOSIS BY 60CO GAMMA-IRRADIATION OF LAMB MEAT. (JA )**
H Hosoya S Nagao T Sagara
*Tokyo Soc Vet Zootech Sci J (14/15):83-87*
Dec 1965 41.9 T574

Animal diseases, Cobalt isotopes, Gamma rays, Irradiation, Lambs, Meat, Toxoplasmosis.

**3554-69**
**PULLORUM DISEASE--AN IMPORTANT CAUSE OF CHICKEN DEATHS.**
C A W Jackson
*Agr Gaz New S Wales 79(6):356-360*
Jun 1968 23 N472
Chickens, Disease control, Disease transmission, Formaldehyde, Furazolidone, Pullorum disease, Salmonella pullorum, Symptomatology.

Pullorum disease in chickens, caused by the bacterium Salmonella pullorum, its transmission, symptoms, treatment, and eradication are discussed. Sanitation measures for its prevention are suggested.

**3555-69**
**RESPIRATORY DISEASES OF POULTRY.**
F T W Jordan
*Spain; Shell Pub Health Agr News 11(1):24-27*
1968 464.8 SP2
Bacterial vaccines, Escherichia coli, Fowlpox, Immunization, Infectious bronchitis, Infectious diseases, Infectious laryngotracheitis, Mycoplasmosis, Newcastle disease, Poultry, Septicemia, Viruses.

**3556-69**
**EFFICIENCY OF VARIOUS DIAGNOSTIC TESTS FOR MASTITIS.**
D S Kalra
*Prog Farming 4(3):449-456 REF*
Sep 1967 S19.P8
Blister rust, Diagnosis, Laboratories, Mastitis, Milk analysis, Research.

**3557-69**
**COMPARATIVE HISTOPATHOLOGY OF EXPERIMENTAL BLUETONGUE DISEASE AND EPIZOOTIC HEMORRHAGIC DISEASE OF DEER. ABSTRACT.**
L Karstad
*Wildlife Dis Ass Bull 3(3):119*
Jul 1967 41.9 W64B
Anatomy, Animal diseases, Bluetongue virus, Deer, Epizootic diseases, Histology, Tissues. Is from a Wildlife Disease Conference in Illinois

**3558-69**
**EXPERIMENTALLY INDUCED IMMUNITY IN GULLS TO TYPE E BOTULISM.**
O W Kaufmann E M Crecelius
*Amer J Vet Res 28(12):1857-1862*
Nov 1967 41.8 AM3A
Animal diseases, Botulism, Clostridium botulinum, Gulls, Immunization.

**3559-69**
**ANTIBODY TITER AGAINST LEPTOSPIRA IN LIVER- AND OTHER INTERNAL DISEASES. (GE )**
J Konrad J Vosta
*Deut Tierarztl Wochensch 75(14):347-352 REF*
15 Jul 1968 41.8 D482
Animal diseases, Antibodies, Horses, Leptospira, Leptospirosis, Liver diseases, Tables (data), Volumetric analysis. English summary.

Leptospira were discovered in the following numerical order: grippotyphosa, ictero-haemorrhagiae, australis, pomona, canicola and ballum.

**3560-69**
**MELIOIDOSIS IN ANIMALS IN NORTH QUEENSLAND. V. SEROLOGICAL METHODS OF DIAGNOSIS IN SHEEP.**
L Laws
*Queensland J Agr Anim Sci 24(2):207-221 REF*
Jun 1967 23 Q37
Complement fixation, Diagnosis, Hemagglutination, Melioidosis, Pseudomonas aeruginosa, Pseudomonas pseudomallei, Serological tests, Sheep.

**3561-69**
**MELIOIDOSIS IN ANIMALS IN NORTH QUEENSLAND. VI. SEROLOGICAL METHODS OF DIAGNOSIS IN GOATS, PIGS, CATTLE, HORSES, AND MAN.**
L Laws
*Queensland J Agr Anim Sci 24(2):223-234 REF*
Jun 1967 23 Q37
Antibodies, Cattle, Complement fixation, Diagnosis, Goats, Hemagglutination, Horses, Human diseases, Melioidosis, Pseudomonas pseudomallei, Serological tests, Swine.

**3562-69**
**SODIUM SILICOFLUORIDE FROM A LOCAL FLOROSIL PREPARATION IN THE TREATMENT OF CATTLE TRICOPHYTIA. (RUM )**
M Lepadat-Teofil
*Rev Zootech 18(10):62-64*
Oct 1968 49 P943
Cattle, Florisil, Fungus diseases (animals), Livestock diseases, Ringworm, Sodium fluosilicate.

**3563-69**
**ANAPHYLACTIC SHOCK TYPE REACTIONS SUBSEQUENT TO RABIES VACCINATION OF CATTLE. (RUM )**
A Levinschi
*Rev Zootech 18(10):65-66*
Oct 1968 49 P943
Anaphylaxis, Cattle, Immunization, Livestock diseases, Rabies, Symptomatology, Virus diseases (animals).

**3564-69**
**OCCURENCE OF SPONTANEOUS ATHEROSCLEROSIS IN THE AORTAS OF SWINE. (POR )**
A V Machado
*Minas Gerais Univ Escol Vet Arq 18:135-142 REF*
1966 41.9 M662
Aorta, Atherosclerosis, Cholesterol, Histopathology, Lesions, Livestock diseases, Swine. English summary.

**3565-69**
**RESEARCH NOTE: CULTIVATION OF AVIAN ENCEPHALOMYELITIS VIRUS IN CHICKEN EMBRYO KIDNEY CELL CULTURE.**
L O Mancini V J Yates
*Avian Dis 7(4):686-688*
Nov 1968 41.8 AV5
Avian encephalomyelitis, Cells, Chickens, Culture media, Embryology, Kidneys, Research, Virus diseases (animals).

**3566-69**
**EXPERIMENTAL TRYPANOSOMA CRUZI INFECTION IN BEAGLE PUPPIES. THE EFFECT OF VARIATIONS IN THE DOSE AND SOURCE OF INFECTING TRYPANOSOMES AND THE ROUTE OF INOCULATION ON THE COURSE OF THE INFECTION.**
P D Marsden J W C Hagstrom
*Roy Soc Trop Med Hyg Trans 62(6):816-824 REF*
1968 448.9 R813
Animal diseases, Beagle dogs, Dosage, Immunization, Laboratory animals, Pathogenicity, Rhodnius prolixus, Trypanosoma cruzi, Trypanosome.

**3567-69**
**ISOLATION OF BRUCELLA ABORTUS FROM GOATS AND SHEEP IN THE PUNJAB.**
T N Mathur
*Indian J Vet Sci Anim Husb 37(4):277-286*
Dec 1967 41.8 IN22
Bacterial diseases (animals), Brucella abortus, Goats, Milk, Sheep.

**3568-69**
**HYDATIDS.**
G K Meldrum
*Tasmanian J Agr 39(4):312-320 MAP*
Nov 1968 23 T182T
Disease control, Dogs, Echinococcosis, Sheep.

**3569-69**
**HISTOLOGICAL, IMMUNO-FLUORESCENT AND HISTOCHEMICAL STUDIES ON THE BEHAVIOR OF THE INCLUSION BODIES IN CANINE DISTEMPER. (GE**
C-u von Mickwitz H-d Schroeder
*Zentralbl Vet (SER B)15(4):453-470 REF*
Jun 1968 41.8 Z52
Animal diseases, Animal histology, Canine distemper, Dogs, Fluorescence, Histochemistry, Immunology, Inclusion bodies. English, French, Spanish summaries.

**3570-69**
**CHANGE OF O- ANTIGEN OF THE SPECIES VIBRIO FETUS. (GE )**
E Mitscherlich R Heider
*Zentralbl Veterinarmed Reihe B (SER B)15(4):486-493 REF*
Jun 1968 41.8 Z52
Antigens, Cattle, Livestock diseases, Reproductive organs, Vibrio fetus bacterins, Vibriosis. English, French, Spanish summaries.

**3571-69**
**RESEARCH NOTE: SOME OBSERVATIONS ON EXPERIMENTAL AVIAN ENCEPHALOMYELITIS.**
G C Mohanty J L West
*Avian Dis 7(4):689-693*
Nov 1968 41.8 AV5
Avian encephalomyelitis, Poultry, Research, Virus diseases (animals).

**3572-69**
**FOOT-AND-MOUTH DISEASE IMMUNITY AS DEPENDENT ON VACCINE DOSIS AND ON THE REACTIVITY OF THE ORGANISM.**
N Muntiu V Dohotaru A Bercan I Marinescu A Tomescu
*Arch Vet 2(2):3-20 REF*
1967 41.8 AR27
Cattle, Dosage, Foot-and-mouth disease, Immunity, Livestock diseases, Tables (data), Time, Vaccines. French, German and Russian summaries.

**3573-69**
**REACTION OF SKELETAL MUSCLE TO MYCOPLASMA CAPRAE.**
M S Nagi G L Sharma N P Bhalla
*Indian J Vet Sci Anim Husb 37(2):118-121*
Jun 1967 41.8 IN22
Animal histology, Goats, Muscles, Mycoplasma. Atrophy of skeletal muscle.

**3574-69**
**MASTITIS CONDITIONED BY FEEDING. (DA )**
S J Olsen
*Nord Veterinaermed 20(10):562-575 REF*
Oct 1968 41.8 N813
Animal nutrition, Etiology, Feed, Livestock diseases, Mastitis, Proteins, Sugar, Water pollution. English and German summaries.

**3575-69**
**THE EFFECT OF MANGANESE ON YOUNG POULTRY GROWTH. (RUM )**
E Poll V Martin M Dumitrescu V Martin
*Rev Zootech 17(2):59-71 REF*
Feb 1967 49 P943
Animal nutrition, Animal physiology, Calcium chloride, Deficiency diseases, Hypomagnesemia, Leghorn chickens, Magnesium chloride, Magnesium oxide, Magnesium sulfate, Manganese, Poultry diseases, Proteins. English, French and Russian summaries.

**3576-69**
**FOWL PLAGUE PREVENTION BY IMMUNIZATION. (RUM )**
I Popovici A Popoviciu
*Rev Zootech 18(10):34-37*
Oct 1968 49 P943
Antibiotics, Fowl plague, Immunization, Poultry diseases, Tissue culture, Vaccines.

**3577-69**
**THE IN VIVO INTERACTION OF CANDIDA ALBICANS AND SALMONELLA TYPHIMURIUM.**
C Ramirez J P Ransom D H Pitkin
*Microbiol Espan 21(1-2,JAN-JUN):89-91*
1968 448.3 M583
Bacterial diseases (animals), Candida albicans, Mice, Pathogenicity, Salmonella typhimurium.

3578-69
**SWINE BRUCELLOSIS.**
A Retnasabapathy C S Kheng
*Malaysian Vet J 4(2):130-135*
Dec 1967 41.9 M292
Bacterial diseases (animals), Bacteriology, Brucellosis, Disease control, Epidemiology, Sanitation, Swine, Symptomatology.

3579-69
**INFLUENCE OF STREPTOCOCCUS EQUISIMILIS ON SITES OF ENDOCHONDRAL OSSIFICATION IN SWINE.**
E D Roberts F K Ramsey W P Switzer J M Layton
*Amer J Vet Res 28(127):1677-1685 REF*
Nov 1967 41.8 AM3A
Animal diseases, Bone marrow, Calcification (physiological), Cartilage, Injections, Streptococcus equisimilis, Swine.

3580-69
**EPIZOOTIOLOGIC AND LABORATORY RESEARCHES ON ASPERGILLUS FUMIGATUS IN FOWL, YOUNG CATTLE AND SHEEP. (RUM )**
V Rosca V Stanescu
*Rev Zootech 18(10):54-61*
Oct 1968 49 P943
Aspergillosis, Aspergillus fumigatus, Calves, Diagnosis, Epizootic diseases, Fungus diseases (animals), Laboratories, Livestock diseases, Mycosis, Poultry diseases, Sheep. English, French and Russian summaries.

3581-69
**LEPTOSPIROSIS IN ARGENTINA. (SP )**
H Rugiero R A Cacchione
*Argent Repub Inst Nac Zoonosis Ser Tec (N s)(31):123-138 MAP REF*
1964 41.9 AR36
Bacterial diseases (animals), Epidemiology, History, Leptospirosis, Livestock diseases, Serological tests, Weil's disease. English summary.
Reprint from: Revista de Investigaciones Agropecuarias (ser 4)1(10).

3582-69
**IDENTIFICATION AND DIFFERENTIATION OF BACILLUS ANTHRACIS IN CULTURES AND TISSUES FROM OTHER GERMS OF THE GENUS BACILLUS WITH THE AID OF FLUORESCENT ANTIBODIES. (FR )**
A Eteanu
*Arch Vet 2(2):43-61 REF*
1967 41.8 AR27
Anthrax bacterins, Bacillus, Bacillus anthracis, Bacteriology, Fluorescent antibody technic, Immunofluorescence, Testing, Tissue culture.

3583-69
**AN OUTBREAK OF INFECTIOUS BOVINE KERATITIS IN KEDAH.**
C Samuel
*Malaysian Vet J 4(2):139-141*
Dec 1967 41.9 M292
Bacterial diseases (animals), Cattle, Drug therapy, Epidemiology, Eyes, Infectious diseases, Infectious keratitis, Moraxella bovis, Symptomatology.

3584-69
**ANIMAL PARASITES OF ANIMALS WHICH AFFECT MAN IN MALAYSIA.**
A A Sandosham M N Keling
*Malaysian Vet J 4(2):112-129 REF*
Dec 1967 41.9 M292
Animals, Arthropoda, Disease transmission, Humans, Parasitism, Platyhelminthes, Protozoa. 36 specific diseases caused by protozoa, arthropods, and helminths were discussed.

3585-69
**STUDIES OF AVIAN LEUKOSIS GROUP-SPECIFIC COMPLEMENT-FIXING SERUM ANTIBODIES IN PIGEONS.**
P S Sarma T Log R J Huebner H C Turner
*Virology 37(3):480-483 REF*
Mar 1969 448.8 V81
Antibodies, Avian leukosis complex, Complement fixation, Neoplasms, Pigeons, Rous sarcoma virus, Serum, Virus diseases (animals).

3586-69
**USE OF ALKYLGUANIDINE SALTS AS VIRUCIDES. PATENT 3,436,461.**
F Scotti
*Us Patent Office Offic Gaz 861(1):250*
01 Apr 1969 156.65 OF2
Disease control, Guanidine, Herpes simplex, Influenza viruses, Salts, Virucides, Virus diseases (animals).

3587-69
**COMPARATIVE MORPHOLOGIC FEATURES OF BABESIA CABALLI AND BABESIA EQUI.**
C F Simpson W W Kirkham J M Kling
*Amer J Vet Res 28(127):1693*
Nov 1967 41.8 AM3A
Babesia caballi, Babesia equi, Blood parasites, Electron microscopy, Horses, Microorganisms, Morphology.

3588-69
**ISOLATION AND CHARACTERIZATION OF THE AETIOLOGIC AGENT OF BUFFALO-POX.**
I P Singh S B Singh
*Prog Farming 4(3):440-448 REF*
Sep 1967 S19.P8
Buffaloes, Chick embryos, Epidemiology, Poxviruses, Research, Serum neutralization test, Virus diseases (animals).

3589-69
**SOME OBSERVATIONS ON EXPERIMENTAL INFECTION WITH HISTOPLASMA FARCIMINOSUM (RIVOLTA) AND THE MORPHOLOGY OF THE ORGANISM.**
T Sinjh B M L Varmani
*Indian J Vet Sci Anim Husb 37(1):47-57 REF*
Mar 1967 41.8 IN22
Epizootic lymphangitis, Histoplasma farciminosum, Microscopy, Plant morphology, Plant physiology.

3590-69
**NEWCASTLE DISEASE VIRUS (NDV) IN CELL CULTURES. I. A COMPARATIVE STUDY OF TWO STRAINS IN DIFFERENT CELL SYSTEMS. (POR**
L A Soares O Hipolito L de O. Silva
*Minas Gerais Univ Escol Vet Arq 18:71-75 REF*
1966 41.9 M662
Cells, Diagnosis, Disease control, Newcastle disease virus, Poultry diseases, Tissue culture, Vaccines, Virology, Virus diseases (animals). English summary.

3591-69
**VIRUS INVOLVEMENT IN THE AVIAN HEART: EFFECT ON PROTEIN SYNTHESIS.**
R L Squibb M M Lyons W R Beisel
*J Nutr 96(4):509-512*
Dec 1968 389.8 J82
Amino acids, Biochemistry, Chicks, Deoxyribonucleic acid, Heart, Newcastle disease virus, Proteins, Ribonucleic acid, Virus diseases (animals).

3592-69
**A MORPHOLOGICAL STUDY OF THE EXOGENOUS STAGES OF EIMERIA LABBEANA, A PARASITE OF THE COMMON PIGEON, COLUMBA LIVIA.**
H K Srivastava
*Indian J Vet Sci Anim Husb 37(2):78-86 REF*
Jun 1967 41.8 IN22
Cysts, Eimeria, Morphology, Pigeons, Protozoa.

3593-69
**VACCINATION AGAINST LEPTOSPIROSIS: PROTECTION OF HAMSTERS AND SWINE AGAINST RENAL LEPTOSPIROSIS BY KILLED BUT INTACT GAMMA-IRRADIATED OR DIHYDROSTREPTOMYCIN-EXPOSED LEPTOSPIRA POMMONA.**
O H V Stalheim
*Amer J Vet Res 28(127):1671-1676 REF*
Nov 1967 41.8 AM3A
Animal diseases, Dihydrostreptomycin, Gamma rays, Hamsters, Immunization, Kidneys, Leptospira pomona, Leptospirosis, Swine, Vaccines.

3594-69
**PATHOLOGIC CHARACTERISTICS OF RENAL LESIONS INDUCED BY S(DICHLOROVINYL)-L-CYSTEINE IN CALVES AND RATS.**
A C Strafuss J H Sautter
*Amer J Vet Res 28(127):1805-1815 REF*
Nov 1967 41.8 AM3A
Calves, Dichlorovinyl)-L-cysteine, S-(, Injections, Kidneys, Lesions, Livestock diseases, Neoplasms, Rats.

3595-69
**ELECTRON MICROSCOPIC ASPECTS OF GERMS OF PASTEURELLA ANIMALIUM (P. MULTOCIDA) IN DIFFERENT STAGES OF INCUBATION AND CONSERVATION. (RUS )**
D Tacu C Penea
*Arch Vet 2(2):71-81 REF*
1967 41.8 AR27
Bacteriology, Electron microscopy, Pasteurella multocida, Temperature. English, French and German summaries.

3596-69
**INVESTIGATIONS OF THE PROPERTIES OF CAPSULOGENUS STRAINS OF STAPHYLOCOCCUS AUREUS. (GE )**
D Tacu N Grigoriu A Tacu
*Arch Vet 2(2):83-90 REF*
1967 41.8 AR27
Bacteriology, Laboratory animals, Penicillin, Phase-contrast microscopy, Sheep, Staphylococcus aureus. English, French and Russian summaries.

3597-69
**FATTY ACID COMPOSITION OF THREE STRAINS OF NEWCASTLE DISEASE VIRUS.**
J M Tiffany H A Blough
*Virology 37(3):492-494 REF*
Mar 1969 448.8 V81
Amino acids, Assay, Fatty acids, Lipids, Newcastle disease virus, Poultry diseases, Proteins, Virology, Virus diseases (animals).

3598-69
**CLOVER DISEASE.**
E R Tuohy
*Inst Vet Insp New S Wales Vet Insp Annu 31:87-88*
1967 41.9 IN73
Clover, Livestock diseases, Reproduction, Sheep, Sterility.

3599-69
**LEPTOSPIROSIS II.**
L H Turner
*Roy Soc Trop Med Hyg Trans 62(6):880-899 REF*
1968 448.9 R813
Agglutination, Antigens, Bacterial diseases (animals), Leptospirosis, Microscopy, Quantitative analysis, Serological tests, Serum, Volumetric analysis.

3600-69
**POSSIBILITY OF DIAGNOSIS OF ECHINOCOCCOSIS IN BOVINES BY THE COMPLEMENT FIXATION REACTION. (RUS )**
N Vartic
*Arch Vet 2(2):113-118*
1967 41.8 AR27
Antigens, Cattle, Complement fixation, Diagnosis, Echinococcosis, Livestock diseases. English, French and German summaries.

3601-69
**ISOLATION OF THE RABIES VIRUS IN FOXES IN ARGENTINA. (SP )**
L J Villa C B de Perez Arrieta J F Morris A E Muniz Vega
*Argent Repub Inst Nac Zoonosis Ser Tec (N s)(8):27-38*
1961 41.9 AR36

Epidemiology, Foxes, Rabies, Virology, Virus diseases (animals). English summary.

Reprint from Revista de Investigaciones Ganaderas , no. 11.

**3602-69**
**ON ENZOOTICS OF ANAEROBIC ENTEROTOXEMIA IN CALVES. (RUM )**
V Volintir R Moga-Minzat M Garoiu P Onica C Oprin
*Rev Zootech 18(9):63-68*
Sep 1968 49 P943
Anaerobic bacteria, Calves, Clostridium perfringens, Enterotoxemia, Livestock diseases, Mortality.

**3603-69**
**FOOTROT IN SHEEP.**
D J Walker
*Agr Gaz New S Wales 79(9):550-556*
Sep 1968 23 N472
Animal disease transmission, Bacterial diseases (animals), Chloramphenicol, Crop losses, Diagnosis, Drug therapy, Foot rot (animals), Formaldehyde, Fusiformus nodosus, Sheep, Symptomatology.

Diagnostic procedures, treatments, eradication, and sanitary measures for foot rot in sheep are discussed.

**3604-69**
**CAN MASTITIS BE ELIMINATED .**
F C Wilkinson
*West Aust J Agr (SER 4)10(1):10-12*
Jan 1969 23 W52J
Dairy cattle, Disease control, Livestock diseases, Mastitis, Milking, Quarantine, Testing.

**3605-69**
**ELECTRON MICROSOCPY OF FOWL-POX VIRUS. (PE )**
K Zarrin A Afshar A Modjtabai A Riazi
*Tehran Univ Vet Fac J 24(3/4):84-93 REF*
Sep 1968 41.9 T23
Chorioallantoic sac, Cytoplasm, Electron microscopy, Fowlpox virus, Inclusion bodies, Morphology, Poultry diseases, Virology, Virus diseases (animals). English summary.

## ARTHROPODS

**3606-69**
**RUELENE (DOWCO 105) IN THE CONTROL OF HYPODERMA LINEATUM (OESTRIDAE: DIPTERA).**
R C Chhabra R M Sharma
*Indian J Vet Sci Anim Husb 37(2):96-99*
Jun 1967 41.8 IN22
Butyl-2-chlorophenyl methyl methylphosphoramidate, 4-tert-, Cattle, Chemical control (insects), Drenches, Hypoderma lineatum.

**3607-69**
**RELATION OF RATION TO SHORT-NOSED CATTLE LOUSE INFESTATIONS.**
D G Ely T L Harvey
*J Econ Entomol 62(2):341-344 REF*
15 Apr 1969 421 J822
Animal nutrition, Beef cattle, Diet, Haematopinus eurysternus, Insect behavior, Insect infestation, Parasitic insects. The steers were fed nine different rations.

**3608-69**
**TRANSPLANTATION OF COMMON CATTLE GRUB LARVAE INTO HORSES.**
L D Haws B L Swift
*J Econ Entomol 62(2):503-504*
15 Apr 1969 421 J822
Horses, Hypoderma lineatum, Insect dissemination, Larvae.

**3609-69**
**NEW CONCEPTS FOR CATTLE TICK CONTROL.**
K L Hills
*Spain; Shell Pub Health Agr News 11(1):10-12*
1968 464.8 SP2
Animal disease resistance, Boophilus annulatus, Boophilus annulatus microplus, Cattle, Ddt, Insect control, Insect vectors, Insecticides, Ixodides, Parasitic insects.

**3610-69**
**HORNFLIES TESTED IN ANAPLASMOSIS VECTOR STUDY.**
J Love C Hoelscher R Combs
*Miss Farm Res 31(12):2*
Dec 1968 100 M69M1
Anaplasma marginale, Anaplasmosis, Cattle, Cells, Haematobia irritans, Insect vectors, Livestock diseases, Microorganisms, Research.

**3611-69**
**ARTHROPOD-BORNE VIRAL ZOONOSES IN MALAYA.**
N J Marchette R Garcia A Rudnick
*Malaysian Vet J 4(2):95-99 REF*
Dec 1967 41.9 M292
Arboviruses, Arthropoda, Epidemiology, Insect vectors, Virus diseases (animals), Zoonoses.

**3612-69**
**FLIES AND OTHER INSECTS IN POULTRY HOUSES.**
*Great Brit Min Agr Fish Food Adv Leafl (537):1-5*
Feb 1968 10 G79LA
Acarina, Alphitobius diaperinus, Chemical control (insects), Diazinon, Dichlorvos, Diptera, Fannia canicularis, Insect control, Insect pests, Insect traps, Poultry houses, Ronnel.

Flies, beetles, mites and other insects are discussed as pests in poultry houses. Chemical control with ronnel, dichlorvos, malathion and diazinon sprays and treated strings are recommended.

## PARASITES

**3613-69**
**PARASITES OF FELIS DOMESTICA FROM BELO HORIZONTE, MINAS GERAIS, BRAZIL. (POR )**
H M de A. Costa J O Costa M G Freitas
*Minas Gerais Univ Escol Vet Arq 18:65-69 REF*
1966 41.9 M662
Autopsies, Cats, Helminths, Parasitism, Tables (data). English summary. 10 different parasites are identified.

**3614-69**
**GIANT KIDNEY WORM OF DOG IN TEHERAN AREA (DIOCTOPHYMA RENALE OF DOG). (PE )**
A A Amri R Naghshineh B Zakarian
*Tehran Univ Vet Fac J 24(3/4):129-143 REF*
Sep 1968 41.9 T23
Diagnosis, Dioctophyma renale, Dogs, Kidneys. English summary.

**3615-69**
**THE INCIDENCE OF METASTRONGYLOSIS IN SWINE SLAUGHTERED IN THE MANILA ABATTOIR.**
P V Arambulo V P Hicarte A C Ramos
*Malaysian Vet J 4(2):136-138*
Dec 1967 41.9 M292
Animal diseases, Epidemiology, Lungs, Nematodes, Swine, Verminous bronchitis.

**3616-69**
**LIVER FLUKE DISEASE CONTROL WITH A NEW MOLLUSCICIDE .**
J G Attfield
*Spain; Shell Pub Health Agr News 11(1):23*
1968 464.8 SP2
Cattle, Drug therapy, Fasciola gigantica, Fasciola hepatica, Fascioliasis, Horses, Livestock diseases, Lymnaea truncatula, Molluscacides, Sheep, Tritylmorpholine, N-.

**3617-69**
**THE LIVER FLUKE IN SHEEP.**
C H R Dent
*Agr Gaz New S Wales 79(7):404-409 MAP*
Jul 1968 23 N472
Animal vectors, Anthelmintics, Cattle, Fasciola hepatica, Liver diseases, Sheep, Snails, Trematoda.

The liver fluke (Fasciola hepatica) causes damage to the liver in cattle and sheep which often results in death of the animal, and always causes weakening and slack-off in fertility and productivity. The life cycle and several control methods are discussed in detail.

**3618-69**
**STUDIES ON THE PATHOGENICITY IN STEPHANOFILARIAL HUMPSORE AMONG CATTLE IN INDIA.**
V P S Deorani
*Indian J Vet Sci Anim Husb 37(2):87-95 REF*
Jun 1967 41.8 IN22
Animal histology, Cattle, Livestock diseases, Parasitic nematodes, Pathogenicity, Stephanofilaria assamensis.

**3619-69**
**OBSERVATIONS OF THE PATHOGENICITY OF D. FILARIA INFECTION AND REPORT OF TREATMENT WITH DICTYCIDE -- CYANACETHYDRAZIDE.**
V P S Deorani
*Indian J Vet Sci Anim Husb 37(1):39-46 REF*
Mar 1967 41.8 IN22
Chemical control (nematodes), Cyanacethydrazide, Dictycide, Dictyocaulus filaria, Goats, Histopathology, Parasitic nematodes, Pathogenicity.

**3620-69**
**STUDIES ON SCHISTOSOMA NASALE RAO, 1933. I. MORPHOLOGY OF THE ADULTS, EGG AND LARVAL STAGES.**
S C Dutt
*Indian J Vet Sci Anim Husb 37(4):249-262 REF*
Dec 1967 41.8 IN22
Adults, Blood parasites, Cattle, Eggs, Larvae, Livestock diseases, Morphology, Schistosoma.

**3621-69**
**LIPID METABOLISM IN HELMINTH PARASITES--VI. SYNTHESIS OF 2-CIS,6-TRANS FARNESOL BY HYMENOLEPIS DIMINUTA (CESTODA).**
G J Frayha D Fairbairn
*Compar Biochem Physiol 28(3):1115-1124 REF*
Mar 1969 444.8 C73
Biochemistry, Farnesol, Hymenolepis diminuta, Lipids, Metabolism, Synthesis.

**3622-69**
**SOME ASPECTS OF THE CONTROL OF HELMINTHOSIS IN SHEEP.**
H ML Gordon
*Inst Vet Insp New S Wales Vet Insp Annu 31:88-99*
1967 41.9 IN73
Anthelmintics, Chemical control (pests), Helminthiasis, Nematodes, Parasitism, Sheep.

**3623-69**
**FACTORS AFFECTING PROTEIN SYNTHESIS IN HYMENOLEPIS DIMINUTA (CESTODA).**
B G Harris C P Read
*Compar Biochem Physiol 28(2):645-654 REF*
Feb 1969 444.8 C73
Biochemistry, Carbon dioxide, Glucose, Hymenolepis diminuta, Protein synthesis, Radioactive tracers.

**3624-69**
**AN IN VITRO EFFECT OF INSULIN ON GLYCOGEN LEVELS IN THE COMMON LIVER FLUKE, FASCIOLA HEPATICA (LINNAEUS, 1758).**
W J W Hines
*Compar Biochem Physiol 28(3):1443-1447 REF*
Mar 1969 444.8 C73
Biochemistry, Fasciola hepatica, Glycogen, Insulin, Metabolism.

3625-69
**PARASITES OF SOWS AND PIGS IN EUROPE.**
D E Jacobs
*Spain; Shell Pub Health Agr News 11(1):16-18*
1968 464.8 SP2
Anthelmintics, Ascaris, Dichlorvos, Helminthiasis, Hyostrongylus, Immunity, Livestock diseases, Metastrongylus, Oesophagostomum, Piperazine, Swine, Trichuris, Verminous bronchitis.

3626-69
**STUDIES ON THE ACQUIRED RESISTANCE OF SHEEP TO DICTYDCAULUS FILARIA (RUDOLPHI, 1809) RAILLIET AND HENRY, 1907.**
G S Kunwar P G Deo
*Indian J Vet Sci Anim Husb 37(4):298-304 REF*
Dec 1967 41.8 IN22
Dictyocaulus filaria, Immunity, Livestock diseases, Sheep.

3627-69
**WENYONELLA PHILIPLEVINEI, N. SP., A COCCIDIAL ORGANISM OF THE WHITE PEKIN DUCK.**
L Leibovitz
*Avian Dis 7(4):670-681 REF*
Nov 1968 41.8 AV5
Coccidae, Coccidiosis, Ducks, Parasitism, Poultry diseases, Wenyonella philiplevinei.

3628-69
**NEMATODIRUS DISEASE IN LAMBS.**
*Great Brit Min Agr Fish Food Adv Leafl (491):1-3*
Feb 1968 10 G79LA
Drug therapy, Grazing, Lambs, Life cycle, Morphology, Nematodirus battus, Nematodirus filicollis.

The life cycle, symptomatology, treatment and protection against Nematodirus infection in lambs are discussed. Grazing lambs on pastures not grazed by lambs the year before and drug therapy are the recommended means of control.

3629-69
**STUDIES ON STEPHANOFILARIASIS IN ORISSA. I. INCIDENCE AND SEASONAL VARIATION OF THE DISEASE.**
B Patnaik
*Indian J Vet Sci Anim Husb 38(1):36-45 REF*
Mar 1968 41.8 IN22
Cattle, Chemical control (nematodes), Epidemiology, Livestock diseases, Organophosphates, Verminous dermatitis.

3630-69
**STUDIES ON THE SPRING RISE PHENOMENON IN OVINE HELMINTHIASIS I. SPRING RISE IN STABLED SHEEP.**
B G Procter H C Gibbs
*Can J Comp Med Vet Sci 32(1):359-365 REF*
Jan 1968 41.8 C162
Epidemiology, Haemonchus contortus, Helminthiasis, Nematodes, Parasitism, Research, Sheep.

3631-69
**THE EFFECT OF HOUSEHOLD FREEZING ON THE INFESTIVENESS OF DIPHYLLOBOTARIUM LATUM FROM FISH TO MAN.**
K Salminen
*Nord Veterinaermed 20(10)543-556*
Oct 1968 41.8 N813
Cestoda, Diphyllobothrium latum, Fish, Freezing, Human diseases, Infestation, Larvae, Public health, Time. Swedish and German summaries.

3632-69
**HYDATID DISEASE--DOG TESTING RESULTS, 1 APRIL-13 JUNE 1968.**
*Tasmanian J Agr 39(3):250*
Aug 1968 23 T182T
Dogs, Echinococcosis, Epidemiology, Surveys.

The results of a survey of Tasmanian dogs tested for hydatids in 1968 are compared to those of 1966 and 1967.

3633-69
**CLINICAL EFFECTIVENESS OF SULFAMONOMETHOXINE AND SULFADIMETHOXINE IN SPONTANEOUS COCCIDIAL INFECTIONS IN RABBITS.**
K Tsunoda S Imai Y Tsutsumi S Inoue
*Jap J Vet Sci 30(2):109-117 REF*
Apr 1968 41.8 J27
Animal diseases, Biochemistry, Dosage, Drug therapy, Gastrointestinal system, Laboratories, Parasitology, Rabbits, Sulfadimethoxine, Sulfameter. Japanese translation

3634-69
**RESEARCH ON PARAMPHISTOMA-INDUCED INFECTIONS IN THE RUMINANTS OF THE TULCEA DISTRICT. (RUM )**
G Tudor E Anton
*Rev Zootech 18(10):72-82 REF*
Oct 1968 49 P943
Cattle, Ecology, Epidemiology, Goats, Infectious diseases, Livestock diseases, Paramphistomum cervi, Sheep, Trematodiasis. English, French and Russian summaries.

3635-69
**NOTICE OF FILING OF PETITION FOR FOOD ADDITIVE 1-TETRAMISOLE.**
*Fed Regist 33(102):7700*
24 May 1968 L1.451
Anthelmintics, Cattle, Feed additives, Tetramisole.

# COMMODITY PROTECTION

## STORAGE DISEASES

3636-69
**CHEMICAL TREATMENTS FOR CONTROL OF POSTHARVEST DISEASES.**
J W Eckert
*Plant Protect Abs 4:189-190*
Sep 1968 241.75 P69
Chemicals, Pesticides, Plant diseases, Storage diseases. First International Congress of Plant Pathology, London 14-26 July, 1968.

3637-69
**DAMAGE TO SEEDS THROUGH STORAGE ON CHEMICALLY TREATED WOOD. (GE**
O Korting
*Anz Schadlingskunde 40(5):68-72*
May 1967 421 AN9
Boron compounds, Fluorides, Inhibitors, Lumber preservation, Peas, Rape, Seed germination, Seeds, Storage diseases, Wheat. English summary.

3638-69
**LOW TEMPERATURE GROWTH OF SALMONELLA.**
J R Matches J Liston
*J Food Sci 33(6,NOV-DEC):641-645*
1968 389.8 F7322
Agar, Control equipment, Food storage, Growth factors, Incubators, Salmonella, Temperature.

3639-69
**BREAKDOWN AND WEIGHT LOSS IN RED JONATHAN APPLES IN CONTROLLED ATMOSPHERE STORAGE.**
K J Scott R B H Wills E A Roberts
*Australian J Exp Agr Anim Husb 8(34):630*
Oct 1968 23 AU792
Apples, Atmosphere, Carbon dioxide, Oxygen, Plant biochemistry, Plant physiology, Storage, Temperature.

## ARTHROPODS

3640-69
**CHANGES IN THE ARTHROPOD FAUNA OF AN EXPERIMENTAL BULK OF STORED WHEAT.**
C W Coombs G E Woodroffe
*J Appl Ecol 5(3):563-574 REF*
Dec 1968 410 J828
Arthropoda, Insect biology, Insect ecology, Insect pests, Sampling (statistics), Stored products, Wheat.

The following storage pests were introduced and are discussed: Sitophilus granarius, Ptinus tectus, Ptinus pusillus, Oryzaephilus surinamensis, Ahasverus aduena, Hofmannophila pseudospretella and Attagenus pellio. Some others gained access such as Endrosis sarcitrella and Niditinea fuscipunctella.

3641-69
**SAW-TOOTHED GRAIN BEETLE.**
*Great Brit Min Agr Fish Food Adv Leafl (492):1-6*
Feb 1968 10 G79LA
Aluminum phosphide, Carbon tetrachloride, Chemical control (insects), Ethylene dichloride, Grain, Humidity, Insect biology, Insecticides, Malathion, Oryzaephilus surinamensis, Sanitation, Stored products, Wheat.

The life cycle, detection, and control of the saw-toothed grain beetle (Oryzaecephilus surinamenses) are discussed. Good hygiene in storage areas and spraying with malathion, ethylene dichloride, carbon tetra chloride, and aluminum phosphide are recommended control measures.

3642-69
**INSECT PESTS IN FOOD STORES.**
*Great Brit Min Agr Fish Food Adv Leafl (483):1-8*
Mar 1968 10 G79LA
Chemical control (insects), Chlorinated hydrocarbons, Dichlorvos, Ephestia elutella, Humidity, Lindane, Malathion, Mites, Organophosphorus compounds, Packing, Ptinus, Pyrethrum, Sanitation, Stegobium paniceum, Stored products.

The life cycles of common storage pests and means for detecting their presence are discussed. Storage hygiene, good packing, and the application of lindane, pyrethrum, dichlorvos and malathion are recommended control measures.

## MICROBIAL CONTAMINATION

3643-69
**A MICROBIOLOGICAL SURVEY OF BRITISH FRESH SAUSAGE.**
M J Dowdell R G Board
*J Appl Bacteriol 31(3):378-396, REF*
Sep 1968 448.39 SO12
Escherichia coli, Food contamination, Microorganisms, Sausages, Streptococcus, Surveys.

3644-69
**THE DETECTION OF SALMONELLA ORGANISMS IN MILK POWDER.**
A G Frieberg
*New Zeal J Dairy Technol 2(2):51-52*
Jun 1967 SF221.N4
Culture media, Dairy products, Dried milk, Food contamination, Salmonella.

3645-69
**A NOTE ON THE SALMONELLA PROBLEM IN THE UNITED STATES.**
J H Henson
*New Zeal J Dairy Technol 2(2):53*
Jun 1967 SF221.N4
Dried milk, Food contamination, Salmonella, Sanitation, Temperature, United states.

3646-69
**PROCESS FOR DETECTING STAPHYLOCOCCIENTEROTOXIN IN FOODSTUFFS PATENT 3,408,259.**
W H Krueger I M Stojanow G F Meeser
*Us Patent Office Offic Gaz 855(5):1346*
29 Oct 1968 156.65 OF2
Amphibians, Food, Food contamination, Patents, Spermatozoa, Staphylococci, Temperature, Toxins.

3647-69
**INSTRUMENTAL EVALUATION OF AFLATOXIN RESOLUTION ON TLC PLATES.**
W A Pons L A Goldblatt
*Ass Offic Anal Chem J 51(6):1194-1197 REF*
Nov 1968 381 AS7
Aflatoxin, Chromatography, Food contamination, Microbiology, Silica gels.

3648-69
**SALMONELLA ORGANISMS IN MILK POWDERS, THE CHARACTERISTICS AND IMPORTANCE OF SALMONELLAE.**
J D Sargent
*New Zeal J Dairy Technol 2(2):48-51*
Jun 1967 SF221.N4
Dairy products, Disease transmission, Dried milk, Enterobacteriaceae, Epidemiology, Food contamination, Human diseases, Microscopy, Salmonella, Salmonellosis, Temperature.

## ENVIRONMENTAL CONTAMINATION

3649-69
**HCH AND DDT IS FORBIDDEN; SUBSTITUTING CHLORINATED HYDROCARBONS IN THE CONTROL OF COLORADO POTATO BEETLE. (HU )**
K Balazs J Bodor
*Kerteszet Szolesz 17(2):47*
Jan 1968 80 K474
Benzene hexachloride, Chemical control (insects), Chlorine, DDT, Hydrocarbons, Insecticides, Legislation, Leptinotarsa decemlineata. 11 insecticides are listed.

3650-69
**THE DESIGN OF MICROBIOLOGICAL SAFETY CABINETS.**
H M Darlow
*Chem Indus (45):1914-1916*
11 Nov 1967 382 M31C
Accident prevention, Aerosols, Air conditioning equipment, Antiseptics, Equipment, Filters, Fumes, Fumigation, Microbiology, Ventilation.

3651-69
**PESTICIDE POLLUTION CONTROL.**
H P Nicholson
*Science 158(3803):871-876 REF*
17 Nov 1967 470 SCI2
Aquatic animals, Carbamates, Chlorine, Hydrocarbons, Pesticides, Phosphorus compounds, Regulations, Water analysis, Water pollution.

3652-69
**INVESTIGATION OF THE SOIL OF A VINEYARD FLOODED WITH KEROSINE. (GE )**
B Walter
*Weinberg Keller 14(9):387-402 REF*
Sep 1967 95.8 W435
Grape vineyards, Kerosine, Plant injuries, Residues, Soil contamination, Soil horizons, Soil permeability, Soil profiles, Tables (data). English and French summaries.

## RESIDUES

3653-69
**THE DETERMINATION OF DIMETHOATE RESIDUES IN FRUITS AND VEGETABLES.**
*Analyst 93(1112):756-772 REF*
Nov 1968 382 AN1
Aluminum oxide, Chlorides, Chromatography, Dimethoate, Distillation, Fruit, Hydrazine sulfate, Identification, Methodology, Molybdenum, Pesticide residues, Quantitative analysis, Research, Tables (data), Vegetables. This article includes three appendixes

3654-69
**DETERMINATION OF DIMETHOATE RESIDUES IN FLUE-CURED TOBACCO.**
R J Ashworth
*Tobacco (New York) 165(26):63-67 REF*
29 Dec 1967 286.89 T552
Chromatography, Dimethoate, Extracts, Fluecured tobacco, Insecticide residues, Leaves, Testing.

3655-69
**THE EFFECTS OF AN ACUTE INSECTICIDE STRESS ON A SEMI-ENCLOSED GRASSLAND ECOSYSTEM.**
G W Barrett
*Ecology 49(6,AUTUMN):1019-1035 REF*
1968 410 EC7
Carbamates, Carbaryl, Ecology, Insecticide application, Insecticide residues, Insecticides, Pastures, Spraying.

3656-69
**PESTICIDE TESTING IN DAIRY FACTORY LABORATORIES.**
R M Dolby I K Gray
*New Zeal J Dairy Technol 2(4):138-140*
Dec 1967 SF221.N4
Aldrin, Alkalies, Chemicals, Chromatography, Dairy products, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, Dieldrin, DDT, Equipment, Florisil, Hydrolysis, Laboratories, Lindane, Methodology, Pesticides.

3657-69
**HEALTH HAZARDS ASSOCIATED WITH PRODUCTION AND PREPARATION OF FOODS.**
N A Fish
*Can J Public Health 59(12):463-466*
Dec 1968 449.8 P964
Agricultural legislation, Antibiotics, Bacteria, Food contamination, Food processing, Hormones, Microbial contamination, Organic compounds, Pesticide residues, Public health, Viruses.

3658-69
**ESTIMATION OF RESIDUES OF URACIL HERBICIDES BY GAS CHROMATOGRAPHY AFTER EVAPORATIVE CO-DISTILLATION.**
W H Gutenmann D J Lisk
*Ass Offic Anal Chem J 51(3):688-690*
May 1968 381 AS7
Chromatography, Distillation, Gases, Herbicide residues, Herbicides, Pesticide residues, Uracil.

3659-69
**OSCILLOPOLAROGRAPHIC DETERMINATION OF PARATHION, PARAOXON, AND P-NITROPHENOL IN FORTIFIED CANNED PEACHES FOLLOWING THIN LAYER CHROMATOGRAPHY.**
F E Hearth D E Ott F A Gunther
*Ass Offic Anal Chem J 51(3):690-696 REF*
May 1968 381 AS7
Canning, Chromatography, Insecticide residues, Nitrophenol, p-, Organophosphorus compounds, Paraoxon, Parathion, Peaches, Polarography.

3660-69
**TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. VIABLE SPORES OF THE MICRO-ORGANISM BACILLUS THURINGIENSIS BERLINER.**
J K Kirk
*Fed Regist 34(74):6655-6656*
18 Apr 1969 L1.451
Agricultural legislation, Agricultural products, Bacillus thuringiensis, Biological control (insects), Microorganisms, Pesticides, Regulations, Tolerances.

3661-69
**CONCERNING THE INTERRELATIONSHIP BETWEEN SOIL PESTS, WEEDS AND THEIR CONTROL.**
M Maceljski
*Plant Protect Abs 4:203*
Sep 1968 241.75 P69
Ecology, Pest control, Soil insects, Weed control. Notes on pestcontrol vol. 41 no. 6, june 1968, p.81-84 , berlin

3662-69
**STUDIES IN PESTICIDE RESIDUES. 3. RONNEL RESIDUES IN THE PERIRENAL AND OMENTAL FAT OF CATTLE FOLLOWING DERMAL APPLICATION.**
J E McLaughlin
*Queensland J Agr Anim Sci 25(1-2,MAR-JUN):1-5 REF*
Jun 1968 23 Q37
Cattle, Chromatography, Fats, Insecticide residues, Ronnel.

3663-69
**THE DISPPEARANCE OF TRIFLURALIN FROM FIELD SOILS.**
S J Parka J B Tepe
*Weed Sci 17(1):119-123*
Jan 1969 79.8 W41
Degradation, Herbicide residues, Soil analysis, Trifluralin.

3664-69
**FACTORS INFLUENCING THE TOXICITY OF AQUEOUS FORMULATIONS OF PYRETHRUM AGAINST AN APHID, MACROSIPHUM EUPHORIBAE (THOMAS). (ABSTRACT).**
N Patwa
*Pesticide Progr 5(3):77*
May 1967 79.8 P434
Aphididae, Formulations, Insecticide application, Macrosiphum euphorbiae, Pyrethrum, Spraying, Surface-active agents, Toxicology. This is the author's abstract taken from Pyrethrum Post 8 (1): 6-7. 1965.

3665-69
**MALATHION, METHYL PARATHION, DIAZINON, AND ENDOSULFAN RESIDUES IN SUNFLOWER SEEDS.**
N M Randolph H W Dorough G L Teetes
*J Econ Entomol 62(2):462-464*
15 Apr 1969 421 J822
Diazinon, Endosulfan, Insecticide residues, Malathion, Methyl parathion, Spraying, Sunflower seeds.

3666-69
**LABORATORY EVALUATION OF MALATHION AS A PROTECTANT FOR STORED WALNUTS.**
G H Spitler P L Hartsell
*J Econ Entomol 62(2):305-307*
15 Apr 1969 421 J822
Chemical control (insects), Dosage, Insect pests, Insecticide residues, Malathion, Oryzaephilus, Plodia interpunctella, Stored products, Walnuts.

3667-69
**COLLABORATIVE STUDY OF THE ETHYL ACETATE EXTRACTION, SWEEP CO-DISTILLATION CLEANUP, AND GLC DETERMINATION, USING SIX PARENT ORGANOPHOSPHATE PESTICIDES.**
R W Storherr R R Watts
*Ass Offic Anal Chem J 51(3):662-665*
May 1968 381 AS7
Acetates, Chromatography, Distillation, Ethyl acetate, Extracts, Field crops, Organic compounds, Pesticide residues, Phosphorus, Research.

3668-69
**COLLABORATIVE STUDY OF THREE GAS CHROMATOGRAPHIC DUAL DETECTION SYSTEMS FOR ANALYSIS OF MULTIPLE CHLORINATED AND ORGANOPHOSPHORUS PESTICIDES.**
J R Wessel
*Ass Offic Anal Chem J 51(3):666-675 REF*
May 1968 381 AS7
Chemistry, Chlorine, Chromatography, Gases, Organophosphorus compounds, Pesticide residues, Phosphorus, Research.

## TOXICOLOGY

**3669-69**
**ECONOMIC POISONS, WARNING, CAUTION, AND ANTIDOTE STATEMENTS ON LABELS.**
*Fed Regist 34(64):6106*
04 Apr 1969 L1.451
Accident prevention, Agricultural legislation, Fungicides, Insecticides, Labeling, Pesticides, Regulations, Rodenticides.

**3670-69**
**METABOLISM OF 3,3'-DICHLORO-5,5'-DINITRO-0,0'-BIPHENOL (BAYER 9015) ANTIFLUKE AGENT IN A LACTATING COW.**
W H Gutenmann D J Lisk
*J Dairy Sci 51(12):1977-1979*
Dec 1968 44.8 J822
Bayer 9015, Dairy cattle, Drugs, Metabolism, Milk analysis, Pesticide residues, Trematoda.

**3671-69**
**PREVENTING FISH AND WILDLIFE LOSSES.**
E G Hunt
*Aerial Appl 5(11):4-7*
Nov 1967 333.8 AE8
Aerial dusting, Aerial pest control, Fish culture, Integrated control (pests), Pesticides, Toxicology, Water analysis, Water treatment, Wildlife conservation.

**3672-69**
**PROCESS FOR DE-TOXIFYING SUBSTANCES CONTAMINATED WITH AFLATOXIN. PATENT 3,429,709.**
M S Masri H L E Vix L A Goldblatt
*Us Patent Office Offic Gaz 859(4):1205*
25 Feb 1969 156.65 OF2
Aflatoxin, Agricultural products, Ammonium, Food contamination, Patents, Temperature.

**3673-69**
**LABORATORY ASSAY OF THE MOLLUSCACIDE, TRIPHENYL-LEAD ACETATE. (POR )**
E Paulini C P de Souza
*Rev Brasil Malar Doencas Trop 18(2):247-251*
Apr 1966 448.8 R3283
Assay, Eggs, Molluscacides, Mortality, Snails, Triphenyllead acetate. English and Portugese summaries
Abstract

**3674-69**
**SOME SIGNIFICANT HEALTH ASPECTS OF INSECTICIDAL POISONING.**
D G Steyn
*Vitalst- Zivilisationskrankheiten 13(1):32-35 REF*
Feb 1968 389.8 V836
Abnormalities, Chemical control (pests), Fertility, Health, Insecticides, Legislation, Toxicology, Vitamins. Continuation from no. 6, 1967. German and French summaries.

## PLANT PHYSIOLOGY & BIOCHEMISTRY

**3675-69**
**METHYL BROMIDE CAN BE DANGEROUS.**
Anonymous
*Aust Tob Growers Bull (12):15-17*
1968 69.8 AU72
Biochemistry, Fumigants, Methyl bromide, Safety education. New south wales agricultural gazette, australia

**3676-69**
**THE EFFECT OF PRE-PLANTING SEED TREATMENT BY GAMMA RAYS ON THE OXIDATIVE PHOSPHORYLATION IN COTTON LEAVES. (RUS )**
S V Arslonova R A Otakuzineva
*Uz Biol Zhur 11(3):11-13*
1967 442.8 UZ1
Absorption, Cottonseed, Gamma rays, Irradiation, Oxygen, Phosphorylation, Plant metabolism, Plant physiology, Planting, Seed treatment. English summary.

**3677-69**
**AN ATTEMPT OF BIOCHEMICAL AND SEROLOGICAL CLASSIFICATION OF 24 STRAINS OF THE BACILLUS OF THE TYPE B. THURINGIENSIS.**
H de Barjac A Bonnefoi
*Entomophaga 7(1):5-31 REF*
1962 421 EN835
Agglutination test, Antigens, Bacillus thuringiensis, Biochemistry, Research, Serological tests. English summary.

**3678-69**
**SPORE GERMINATION TEST AND VICIA FABA PLANT TEST FOR TESTING THE EFFECTIVENESS OF FUNGICIDES AGAINST BOTRYTIS CINEREA. (GE )**
K Bohnen
*Weinberg Keller 14(9):405-413*
Sep 1967 95.8 W435
Botrytis cinerea, Broadbeans, Fungicides, Fungus diseases (plants), Laboratories, Methodology, Spore germination, Testing.

**3679-69**
**EFFECTS OF FOLIARLY APPLIED DESICCANTS ON SELECTED SPECIES UNDER TROPICAL ENVIRONMENT.**
R W Bovey
*Weed Sci 17(1):79-83*
Jan 1969 79.8 W41
Cucumbers, D, 2,4-, Defoliants, Dinitrobutylphenol, Diquat, Foliar application, Greenhouse culture, Guavas, Herbicides, Mangoes, Paraquat, Pentachlorophenol, Plant physiology, Plant regulators, Sorghum, T, 2,4,5-.

**3680-69**
**THE INFLUENCE OF DARKNESS ON THE UPTAKE AND MOVEMENT OF DIQUAT AND PARAQUAT IN TOMATOES, SUGAR BEET AND POTATOES.**
R C Brian
*Ann Appl Biol 63(1):117-126*
Feb 1969 442.8 AN72
Absorption, Diquat, Light, Paraquat, Plant physiology, Plant translocation, Potatoes, Sugar beets, Tomatoes.

**3681-69**
**EFFECTS PRODUCED ON TOMATO PLANTS, LYCOPERSICUM ESCULENTUM, BY SEED OR ROOT TREATMENT WITH GIBBERELLIC ACID AND INDOL-3YL-ACETIC ACID.**
M E Brown R M Jackson S K Burlingham
*J Expt Bot 19(60):544-552 REF*
Aug 1968 450 J8224
Azotobacter chroococcum, Biochemistry, Gibberellic acid, Indoleacetic acid, Plant physiology, Plant regulators, Tomatoes.

**3682-69**
**EFFECT OF REPEATED ANNUAL USE OF ATRAZINE ON CORN.**
O C Burnside G A Wicks C R Fenster
*Agron J 61(2,MAR-APR):297-299*
1969 4 AM34P
Atrazine, Chemical control (weeds), Corn, Crop yields, Herbicide residues, Plant physiology.

**3683-69**
**LABORATORY METHODS FOR TESTING THE EFFECTIVENESS OF FUNGICIDES AGAINST BOTRYTIS CINEREA. (GE )**
P Claus
*Weinberg Keller 14(9):403-404*
Sep 1967 95.8 W435
Botrytis cinerea, Conferences, Fungicides, Fungus diseases (plants), Grape vineyards, Laboratories, Methodology, Testing.

**3684-69**
**RESPONSE OF WOODY SPECIES TO 2,4-D, 2,4,5-T, AND PICLORAM AS A FUNCTION OF TREATMENT METHOD.**
H D Coble R P Upchurch J A Keaton
*Weed Sci 17(1):40-46 REF*
Jan 1969 79.8 W41
Climbing plants, D, 2,4-, Foliar application, Herbicides, Methodology, Pesticide application, Picloram, T, 2,4,5-.

**3685-69**
**RESIDUES ON SUGARCANE TISSUES 24 HOURS AFTER APPLICATION OF DIFFERENT FORMULATIONS OF AZINPHOSMETHYL.**
L Davis F Bonner S D Hensley
*J Econ Entomol 62(2):505-506*
15 Apr 1969 421 J822
Azinphosmethyl, Diatraea saccharalis, Formulations, Insect pests, Insecticide application, Insecticide residues, Sugarcane, Tissue culture.

**3686-69**
**SOYBEAN INJURY FROM TRIAZINE RESIDUES IN SOIL.**
R J Fink O H Fletchall
*Weed Sci 17(1):35-36*
Jan 1969 79.8 W41
Atrazine, Crop yields, Herbicide residues, Plant injuries, Plant physiology, Simazine, Soybeans, Triazine.

**3687-69**
**DISSIPATION AND PHYTOTOXICITY OF DICAMBA.**
R R Hahn O C Burnside T L Lavy
*Weed Sci 17(1):2-8*
Jan 1969 79.8 W41
Amiben, Corn, Cucumbers, Degradation, Dicamba, Hydrogen-ion concentration, Light, Phytotoxicity, Plant growth inhibitors, Plant physiology, Seedlings, Soil series, Temperature.

**3688-69**
**THE EFFECT OF 2-CHLOROETHYL TRIMETHYL-AMMONIUM CHLORIDE (CCC) ON THE WATER REGIME OF PLANTS.**
N N Haranjan
*Plant Protect Abs 4:195*
Sep 1968 241.75 P69
Biochemistry, Chloroethyl)trimethylammonium chloride, (2-, Plant physiology, Plant water relations. Fiziol. Rast., 1867, 14:548-51.

**3689-69**
**MODIFICATION OF 2,4-DICHLOROPHENOXYACETIC ACID MOVEMENT IN BEAN PETIOLES BY LIGHT.**
S Harel
*Plant Physiol 44(4):615-617*
Apr 1969 450 P692
Beans, D, 2,4-, Light, Petioles, Plant growth regulator, Plant physiology.

**3690-69**
**METHOD OF DEFOLIATING AND DESICCATING PLANTS WITH SUBSTITUTED TRIPHENYL PHOSPHATES AND PHOSPHITES. PATENT 3,416,911.**
J Hensel D W Gier
*Off Gaz Patent Abst Sect 883*
17 Dec 1968 T223.A2
Defoliants, Patents, Phosphates, Phosphites, Plant biochemistry.

**3691-69**
**THE NATURE OF TIBA ACTION.**
R M Irving
*Okla Agr Exp Sta Tech Bull (128):15P REF*
Aug 1968 100 OK4 (4)
Biochemistry, Molecules, Plant hormones, Plant morphology, Plant physiology, Plant regulators, Triiodobenzoic acid, 2,3,5-.

**3692-69**
**UPTAKE AND TRANSLOCATION OF SUBSTITUTED ANILINE HERBICIDES IN PEANUT SEEDLINGS.**

M L Ketchersid T E Boswell M G Merkle
*Agron J 61(2,MAR-APR):185-187*
1969 4 AM34P
Absorption, Chromatography, Herbicides, Peanuts, Plant translocation, Seedlings, Trifluralin.

**3693-69**
**HALOTYROSINES AS PLANT ROOT GROWTH STIMULANTS. PATENT 3,436,206.**
S Kinoshita N Mukai
*Us Patent Office Offic Gaz 861(1):200*
01 Apr 1969 156.65 OF2
Plant physiology, Plant regulators, Roots, Tyrosine.

**3694-69**
**MEIOTIC AND MORPHOLOGICAL RESPONSE OF GRAIN SORGHUM TO ATRAZINE, 2,4-D, OIL, AND THEIR COMBINATIONS.**
G H L Liang K C Feltner O G Russ
*Weed Sci 17(1):8-12 REF*
Jan 1969 79.8 W41
Atrazine, Chromosomes, Crop yields, D, 2,4-, Herbicides, Mitosis, Oils, Petroleum, Plant abnormalities, Plant morphology, Sorghum, Spraying.

**3695-69**
**BIOASSAY FOR BENSULIDE, DCPA, AND SIDURON IN TURFGRASS.**
A R Mazur J A Jagschitz C R Skogley
*Weed Sci 17(1):31-34 REF*
Jan 1969 79.8 W41
Bensulide, Biological assay, Dimethyl 2,3,5,6-tetrachloroterephthalate, Grasses, Plant physiology, Seedlings, Siduron, Soil analysis, Turf.

**3696-69**
**BIOSYNTHESIS OF AN ESTROGENIC METABOLITE BY FUSARIUM GRAMINEARUM. (ABSTRACT).**
C J Mirocha C M Christensen
*Phytopathology 57(8):822*
Aug 1967 464.8 P56
Abortion, Corn, Estrogens, Gibberella saubinetii, Metabolites, Plant biochemistry, Storage diseases, Swine, Zearalenone.

**3697-69**
**B-NINE REVERSAL OF BENZIMIDAZOLE-OR IAA-INDUCED INHIBITION OF GROWTH AND YIELD OF COWPEA PLANTS.**
D Mishra B Mohanty
*J Expt Bot 19(60):567-574 REF*
Aug 1968 450 J8224
Benzimidazole, Biochemistry, Cowpeas, Crop yields, Indoleacetic acid, Plant growth inhibitors, Plant physiology, Plant regulators, Succinic acid, 2,2-dimethylhydrazide.

**3698-69**
**NODULATION OF MEDICAGO SATIVA IN SOLUTION CULTURE. IV. EFFECTS OF INDOLE-3-ACETATE IN RELATION TO ACIDITY AND NITRATE.**
D N Munns
*Plant Soil 29(2):257-262*
Oct 1968 450 P696
Alfalfa, Hydrogen-ion concentration, Indoleacetic acid, Nitrates, Nodules (plants).

**3699-69**
**BORON NUTRITION OF SUGAR BEET, COTTON, AND SOYBEAN.**
J J Oertli J A Roth
*Agron J 61(2,MAR-APR):191-195*
1969 4 AM34P
Boron, Cotton, Nutrient solutions (plants), Plant nutrition, Plant physiology, Plant translocation, Soybeans, Sugar beets, Symptomatology.

**3700-69**
**METHOD OF DEFOLIATING PLANTS WITH ORGANOMERCURIALS. PATENT 3,433,620.**
L Plonsker N R Wright
*Us Patent Office Offic Gaz 860(3):865*
18 Mar 1969 156.65 OF2
Defoliants, Defoliation, Mercury, Methodology, Organic compounds, Plant physiology.

**3701-69**
**METHOD OF DEFOLIATING PLANTS WITH ORGANOMERCURIALS. PATENT 3,433,622.**
L Plonsker N R Wright
*Us Patent Office Offic Gaz 860(3):865*
18 Mar 1969 156.65 OF2
Defoliants, Defoliation, Mercury, Methodology, Organic compounds, Plant physiology.

**3702-69**
**METHODS FOR TESTING THE EFFECTIVENESS OF FUNGICIDES AGAINST BOTRYTIS CINEREA. (GE )**
E Pommer
*Weinberg Keller 14(9):414-417*
Sep 1967 95.8 W435
Agar, Botrytis cinerea, Culture media, Filter paper, Fungicides, Methodology, Testing, Warburg apparatus.

**3703-69**
**THE OCCURRENCE OF 20-HYDROXY-ECDYSON IN VITEX MEGAPOTAMICA. (GE )**
H Rimpler G Schulz
*Tetrahedron Lett (22):2033-2035*
Jun 1967 385 T29
Chemical analysis, Hydroxyecdysone, 20-, Plant hormones, Plant physiology, Vitex megapotamica.

**3704-69**
**EFFECT OF PARAQUAT ON GROWTH OF SCLEROTIUM ROLFSII IN LIQUID CULTURE AND SOIL.**
R Rodriguez-Kabana E A Curl H H Funderburk
*Phytopathology 57(8):911-915 REF*
Aug 1967 464.8 P56
Culture media, Fungus diseases (plants), Paraquat, Sclerotium rolfsii, Soils.

Abstract: In liquid cultures growth was greatly reduced, and was accompanied by a similar reduction in glucose uptake. Nitrate and inorganic phosphorus utilization were reduced. C02 evolution was restricted.

**3705-69**
**CHEMICAL THINNING OF PEACHES. I. EFFECT OF N-1-NAPHTHYLPHTHALAMIC ACID (PEACH THIN 322) ON FRUIT SET OF HAKUHO PEACHES.**
M Sato
*Plant Protect Abs 4:194*
Sep 1968 241.75 P69
Biochemistry, Chemicals, Naphthylphthalamic acid, N-1-, Peaches, Thinning (fruit). Journal of Japanese Society of Horticultural Science, 1967, 36:21-30.

**3706-69**
**GRAPE LEAF AND BEGONIA TEST FOR TESTING THE EFFECTIVENESS OF FUNGICIDES AGAINST BOTRYTIS CINEREA. (GE )**
K Schulze
*Weinberg Keller 14(9):417-418*
Sep 1967 95.8 W435
Botrytis cinerea, Fungicides, Fungus diseases (plants), Grapes, Leaves, Methodology, Testing.

**3707-69**
**EFFECT OF PROMETRYNE ON 14CO2 FIXATION IN COTTON AND SOYBEAN.**
H C Sikka D E Davis
*Weed Sci 17(1):122-123*
Jan 1969 79.8 W41
Carbon dioxide, Cotton, Herbicides, Isotopes, Photosynthesis, Plant biochemistry, Plant growth inhibitors, Plant physiology, Prometryne, Soybeans.

**3708-69**
**RESPONSES OF LETTUCE (LACTUCA SATIVA L.) TO PLANT GROWTH REGULATOR SPRAYS.**
K Singh M S Saimbhi
*Prog Farming 4(3):382-387 REF*
Sep 1967 S19.P8
Foliar application, Lettuce, Plant physiology, Plant regulators, Spraying, Transplanting.

**3709-69**
**THE RESPONSE OF KENTUCKY BLUEGRASS TO SOIL RESIDUES OF PREEMERGENCE HERBICIDES.**
G S Smith L M Callahan
*Weed Sci 17(1):13-15*
Jan 1969 79.8 W41
Dosage, Greenhouse culture, Herbicide residues, Phytotoxicity, Plant growth inhibitors, Plant physiology, Poa pratensis, Soils. Eleven herbicides were tested.

**3710-69**
**CANDIDA ALBICANS AS A PRODUCER OF SEROTONIN.**
B Sokoloff C C Saelhof A Yoshino
*Growth 31(3):297-300 REF*
Sep 1967 442.8 G91
Candida albicans, Fungi, Gastrointestinal diseases, Heart diseases, Human diseases, Metabolites, Serotonin.

**3711-69**
**EFFECT OF FOLIAR SPRAY OF HORMONES ON THE RHIZOSPHERE MYCOFLORA OF LEGUMINOUS WEEDS.**
S B Sullia
*Plant Soil 29(2):292-298 REF*
Oct 1968 450 P696
Cassia tora, Crotalaria medicaginea, Foliar application, Fungi, Gibberellic acid, Indoleacetic acid, Plant physiology, Rhizosphere, Spraying, Weeds.

**3712-69**
**PERSISTANCE PATTERN FOR DIURON AND LINURON IN NORFOLK AND DUPLIN SANDY LOAM SOILS.**
R P Upchurch F T Corbin F L Selman
*Weed Sci 17(1):69-77*
Jan 1969 79.8 W41
Biological assay, Chemical control (weeds), Corn, Cotton, Crop rotation, Diuron, Dosage, Herbicides, Linuron, Peanuts, Plant injuries, Soil series, Soybeans, Tobacco, Wheat.

**3713-69**
**METHOD OF DEFOLIATING PLANTS WITH ORGANOMERCURIALS. PATENT 3,433,618.**
J C Wollensak D W Zutaut K M Christenson
*Us Patent Office Offic Gaz 860(3):865*
18 Mar 1969 156.65 OF2
Defoliants, Defoliation, Mercury, Methodology, Organic compounds, Plant physiology.

**3714-69**
**GROWTH RESPONSES OF MARQUILLO X KENYA FARMER WHEAT DWARF 1 AND 2 TO GIBBERELLIC ACID, KINETIN, AND INDOLEBUTYRIC ACID UNDER CONTROLLED ENVIRONMENTAL CONDITIONS.**
Y Yao D T Canvin
*Can J Bot 47(1):53-58 REF*
Jan 1969 470 C16C
Crop varieties, Gibberellic acid, Growth factors, Indolebutyric acid, Kinetin, Photoperiodism, Plant ecology, Plant physiology, Temperature, Wheat.

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**3715-69**
**NOTE ON THE VERSATILITY OF OV-17 SUBSTRATE FOR GAS CHROMATOGRAPHY OF PESTICIDES.**
C A Bache D J Lisk
*Ass Offic Anal Chem J 51(6):1270-1271*
Nov 1968 381 AS7
Chromatography, Organic compounds, Pesticide residues, Silicon compounds.

**3716-69**
**INACTIVATION OF HERBICIDES BY ACTIVATED CARBON AND OTHER ADSORBENTS.**
D L Coffey G F Warren
*Weed Sci 17(1):16-19 REF*
Jan 1969 79.8 W41

Adsorption, Bentonite, Biological assay, Carbon, Herbicides, Muck soils, Plant growth inhibitors, Roots, Soil cation exchange.

3717-69
**COMBINATION OF THIN-LAYER CHROMATOGRAPHY AND THE RING-OVEN METHOD FOR THE SEMI-QUANTITATIVE ESTIMATION OF SOME HERBICIDES.**
F Coha R Kljajic
*J Chromatography 40(2):304-307 REF*
25 Mar 1969 475 J824
Amiben, Chemical analysis, Chromatography, Diquat, Herbicides, ClPC, Paraquat, Quantitative analysis, Randox.

3718-69
**RAPID ANALYSIS OF HALOGENATED ORGANIC INSECTICIDES IN AQUEOUS ANIMAL DIPS, USING SODIUM BIPHENYL.**
F P Czech
*Ass Offic Anal Chem J 51(3):568-572 REF*
May 1968 381 AS7
Chlorinated hydrocarbons, Dipping, Insecticides, Quantitative analysis, Sodium biphenyl.

3719-69
**PROCESS FOR UPGRADING MALATHION. PATENT 3,440,305.**
R D Divine
*Us Patent Office Offic Gaz 861(4):1234-1235*
22 Apr 1969 156.65 OF2
Chemical control (pests), Chemistry, Diethyl fumarate, Malathion, Organophosphorus compounds, Patents, Sodium sulfide.

3720-69
**METHOD FOR COMBATING UNDESIRED PLANT GROWTH. PATENT 3,429,688.**
D Duerr H Aebi L Ebner
*Us Patent Office Offic Gaz 859(4):1200-1201*
25 Feb 1969 156.65 OF2
Chemical control (weeds), Herbicides, Patents.

3721-69
**DEFOLIANT COMPOSITIONS PATENT 3,440,034.**
R E Fuller
*Us Patent Office Offic Gaz 861(4):1189*
22 Apr 1969 156.65 OF2
Ammonium nitrate, Defoliants, Fertilizers, Nitrogen, Patents, Sodium arsenite, Urea.

3722-69
**DISSIPATION OF HERBICIDES AT THREE SOIL DEPTHS.**
C l Harris E A Woolson B E Hummer
*Weed Sci 17(1):27-31*
Jan 1969 79.8 W41
Atrazine, Degradation, Fenac, Herbicides, Soil organic matter, Soil series, Temperature.

3723-69
**SYNERGISTIC BIOCIDAL COMPOSITIONS AND METHODS. PATENT 3,417,185.**
R J Herschler
*Off Gaz Patent Abst Sect 931*
17 Dec 1968 T223.A2
Chemistry, Patents, Pesticides.

3724-69
**COLLABORATIVE STUDY OF INFRARED ANALYSIS OF DICAMBA.**
M Malina
*Ass Offic Anal Chem J 51(6):1301-1303*
Nov 1968 381 AS7
Chemistry, Dicamba, Formulations, Herbicides, Infrared rays, Quantitative analysis, Research.

3725-69
**ERYTHROMYCIN DERIVATIVE AND PROCESS FOR THE PREPARATION THEREOF. PATENT 3,417,077.**
H W Murphy V C Stephens J W Conine
*Off Gaz Patent Abst Sect 914*
17 Dec 1968 T223.A2
Antibiotics, Chemistry, Erythromycin, Patents, Processing.

3726-69
**THE DETECTION OF IMIDAZOLES INCLUDING HISTIDINE AND SOME OF ITS DERIVATIVES IN BIOLOGICAL FLUIDS.**
A E Pasieka M E Thomas
*Can J Biochem 47(1):7-10*
Jan 1969 470 C16E
Biochemistry, Electrophoresis, Histidine, Imidazole, Methodology, Research, Urine.

3727-69
**GERMICIDAL COMPOSITION. PATENT 3,440,319.**
J H Wilson
*Us Patent Office Offic Gaz 861(4):1237*
22 Apr 1969 156.65 OF2
Bactericides, Chemistry, Hydrogen peroxide, Light, Patents, Sulfites.

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3728-69
**A LABORATORY SPRAYER-FLAMER.**
O C Burnside
*Weed Sci 17(1):102-104*
Jan 1969 79.8 W41
Dosage, Laboratories, Nozzles, Spraying, Spraying equipment, Weed burners.

3729-69
**TIFTON ULTRA-LOW-VOLUME NOZZLE TIP.**
E A Harrell W W Hare
*J Econ Entomol 62(2):526-527*
15 Apr 1969 421 J822
Equipment, Nozzles, Pesticide application, Spraying, Sweetcorn.

## INDUSTRY

3730-69
**AIN'T NUTHIN' AS GOOD AS IT USED TO BE .**
C H Harper
*Pest Contr Oper News 28(2):14,21*
Feb 1968 SB951.A1P4
Aircraft, Pesticide application, Workmen's compensation insurance.

3731-69
**PESTICIDE INDUSTRY'S TIES WITH THE P.C.O. s.**
L P Quattrochi
*Pest Contr Oper News 28(2):9-11,19-20*
Feb 1968 SB951.A1P4
Agricultural industries, Agricultural research, Consumers, Industrial relations, Pesticides, Profits.

## ECONOMICS

3732-69
**SOME COST FIGURES FOR CONCENTRATE SPRAYS.**
J E Wright
*Amer Fruit Grower 89(2):26,51*
Feb 1969 80 G85W
Costs, Fruit, Pesticide application, Spraying.

## EDUCATION

3733-69
**BEHAVIOR STUDIES ON THE USE OF AGRICULTURAL CHEMICALS.**
*Agr Sci Rev 5(3,3)S QUARTER):26-29*
1967 431.3 AG893
Agricultural education, Herbicides, Insecticides, Pesticide application, Pesticide safety.

The results of a survey of Iowa farmers' knowledge, attitudes, and use of agricultural chemicals and relative information sources are presented.

3734-69
**INCLUSION OF BIOLOGICAL OBJECTS IN A DOCUMENTATION CARD INDEX. (GE )**
W Laux
*Z Angew Entomol 61(4):422-427*
May 1968 421 Z36
Economic entomology, Indexes, Insect pests, Plant diseases, Plant protection. Edge-punched and peek-a-boo cards. english summary.

## REGULATIONS

3735-69
**THE PROMULGATION OF A MAXIMUM TOLERANCE LEVEL ORDINANCE (PLANT PROTECTION). (GE )**
Anonymous
*Gesunde Pflanzen 19(2):21-29*
Feb 1967 464.8 G33
Food, Legislation, Plant protection, Time, Tolerances. Text of ordinance of 30 Nov. 1966 is included.

3736-69
**LABELING CLAIMS INVOLVING USE OF TERM GERM PROOF AND RELATED TERMS IN LABELING OF ECONOMIC POISONS. PROPOSED INTERPRETATION UNDER FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT.**
H W Hays
*Fed Regist 34(65):6194*
05 Apr 1969 L1.451
Agricultural legislation, Bacteria, Fungicides, Insecticides, Labeling, Pesticides, Regulations, Rodenticides.

3737-69
**REGULATIONS FOR THE ENFORCEMENT OF THE FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT. PESTICIDES CONTAINING PHOSPHORUS PASTE.**
H W Hays
*Fed Regist 34(56):5537*
22 Mar 1969 L1.451
Agricultural products, Fungicides, Insecticides, Labeling, Phosphorus, Poisons, Regulations, Rodenticides.

3738-69
**TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. SURFACTANTS.**
H L Ley
*Fed Regist 34(63):6041-6043*
03 Apr 1969 L1.451
Agricultural products, Formulations, Pesticides, Regulations, Surface-active agents, Tolerances.

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Chemical control of the rose mite--Tetranychus urticae (Koch, 1836) Bordreaux and Dosse, 1963 (Acarina, Tetranychidae). 3450

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The genus Phytoseius Ribaga,1902 (Acarina: Phytoseiidae). 3093

A review of the problem of insecticide resistance in Australia. 3220

A mite to combat coconut caterpillar. 3442

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